

WWW.ASUMAG.COM
WWW.SCHOOLDESIGNS.COM

AMERICAN SCHOOL & UNIVERSITY®

SHAPING FACILITIES & BUSINESS DECISIONS

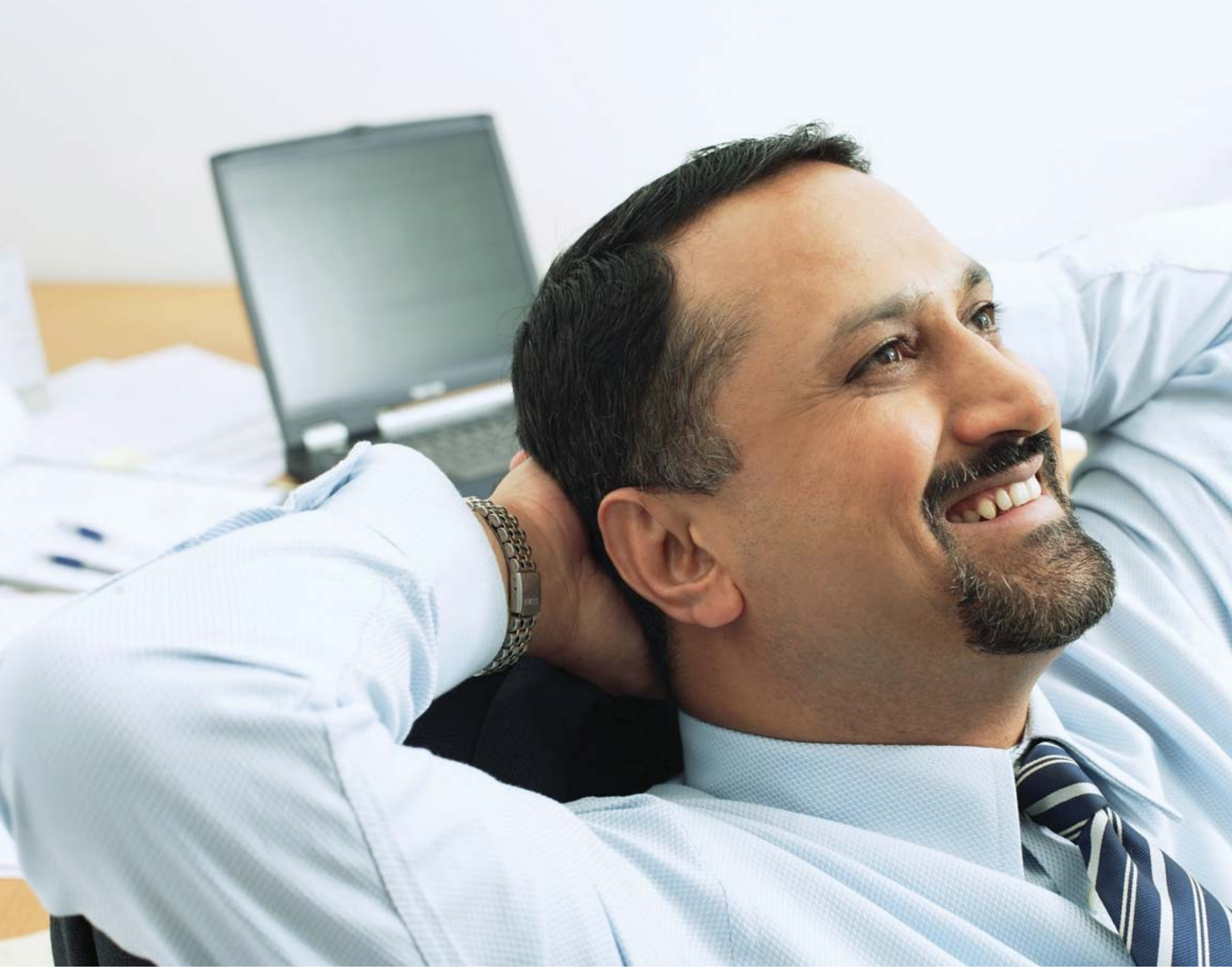
NOVEMBER 2009

architectural portfolio 2009

The Sourcebook for Award-Winning and Outstanding Education Design

A PENTON MEDIA PUBLICATION

SPECIAL SECTION: Green Field Notes





AMERICAN
SCHOOL & UNIVERSITY
SHAPING FACILITIES & BUSINESS DECISIONS

VOLUME 82 • NOVEMBER 2009 • NUMBER 3

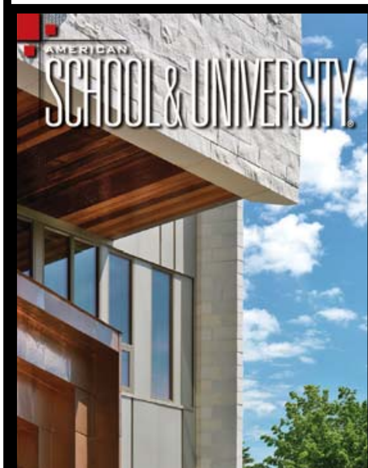
CONTENTS

DEPARTMENTS

The information in this issue is provided with the express understanding and agreement that the information and data within it will be used internally and not for the creation or updating of mailing lists for sale or distribution to third parties.







On the Cover: Macalester College, Institute for Global Citizenship, St. Paul, Minn. Architect: Bruner/Cott & Associates Photographer: Richard Mandelkorn

Save the dates

AS&U announces entry dates for the 2010 Educational Interiors Showcase and Architectural Portfolio. Mark your calendars, and make plans to include your best projects next year. **EIS 2009** entry forms are due March 5; portfolios are due April 2. **AP 2009** entry forms are due June 7; portfolios are due July 9.

American School & University (ISSN: 0003-0945) November 2009, Volume 82, Number 3, published monthly, with an extra issue in March, free to qualified persons in the United States, by Penton Media, Inc., 9800 Metcalf Ave., Overland Park, KS 66212-2216 (penton.com). Subscription rates: Free and controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following rates: USA: 1 year, $69, 2 years, $109; Canada: 1 year, $79, 2 years, $139; other international: 1 year, $99, 2 years, $159. For subscriber services or to order single copies, write to American School & University, P.O. Box 2100, Skokie, IL 60076-7800 USA; call (866) 505-7173 (USA) or (847) 763-9504 (Outside USA); or visit www.asumag.com. Periodicals postage paid at Shawnee Mission, KS and additional mailing offices. Canadian Post Publications Mail Agreement No. 40612608. Canada return address: Bleuchip International, P.O. Box 25542, London, ON N6C 6B2. POSTMASTER: Send address changes to American School & University, P.O. Box 2100, Skokie, IL 60076-7800 USA. Allow 6 to 8 weeks for change of address.

Campus Visits



I recently visited the campus of my alma mater. Although I'd been through town many times over the years (and kept up with construction online), I haven't wandered the campus like a true alumna in quite some time.

Wow, was I surprised. My old residence hall, a four-story building with no air conditioning, has been upgraded to a living-learning community, complete with sophisticated access control, food service and a transformed facade. The rec center where I logged many hours is now a complex series of spaces, including a natatorium, spa, sophisticated weight-training area and leisure pool.

And the journalism school, once a disjointed combination of really old and semi-new buildings: a new facility with the technology to match.

Once the shock (and jealousy) wore off from walking on a campus that had changed so dramatically, I actually was excited for today's students as they are challenged for the future.

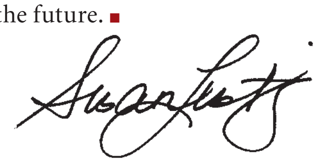
In this annual Architectural Portfolio issue, the main winners struck the jury as facilities that will excite and challenge students in dramatic ways. The Children's School, Stamford, Conn., the Caudill winner, is "reminiscent of the Crow Island School," according to this year's jury.

The Kahn winner, Peninsula College's Library and Administration Center, is a new gateway to campus, inviting students and Port Angeles, Wash., residents to engage in the life of the academic community.

Three special citations—The Atrium School, Watertown, Mass.; The Chapin School, New York City; and the University of Kansas, Lawrence—that use design to inspire.

A special thanks to this year's jury: Will Cumberford, Patrick Guinnane, Caroline Lobo, Ray Mirizzi and Steven Shiver. Thank you for sharing your valuable time and experience this year in choosing projects that will energize the education design community.

If you are planning a new facility or renovating an existing one in your district on on campus, I'd recommend taking a walk around a place you haven't been in awhile. You may be surprised and re-energized about the future. ■



slustig@asumag.com

WEB 101

Sweet charity?

A recent question from Schoolhouse Beat: The Blog: The New York City school system, as part of an effort to encourage better nutrition and healthful eating, has effectively banned most school bake sales. Was this a sound decision?

Some of your comments:

•"This makes no sense. Bake sale customers are primarily parents and community members, not kids. The fact that there are school officials with time on their hands to devise this policy is a further sign that administration can be cut some more."

•"I think it's a great idea. It keeps the message of the nutrition and health curriculum consistent with what students are seeing in the school each day. However, if they were using the proceeds of the bake sale to buy health textbooks, it may cause a problem!"

•"Perhaps the schools could still do bake sales but have healthy baked goods rather than the high-sugar, high-carb, high-fat variety normally present at bake sales."

To read more comments (or add your own), visit http://blog.asumag.com/schoolhouse_beat.



AMERICAN SCHOOL & UNIVERSITY®

Editor-in-Chief/Assoc. Publisher	*Joe Agron*	*jagron@asumag.com*
Executive Editor	*Susan Lustig*	*slustig@asumag.com*
Staff Writer	*Mike Kennedy*	*mkennedy@asumag.com*
Senior Art Director	*Jennifer Ray*	*jray@asumag.com*

Editorial Contributors – *Stephen Ashkin; C. William Day; James E. Rydeen; Association of School Business Officials International; American Institute of Architects Committee on Architecture for Education*

Senior Vice President	*Bob MacArthur*	*bob.macarthur@penton.com*
Group Publisher	*Gregg Herring*	*gregg.herring@penton.com*
Western Sales	*Michael C. Levinson*	*mike@levinsonmedia.com*
East Coast Sales	*JoAnne Romanek*	*jromanek@asumag.com*
Midwest Sales	*Tom Nilsen*	*tom.nilsen@penton.com*
Classified Sales Manager	*Gary Kazmier*	*gary.kazmier@penton.com*
Online Sales/Marketing Mgr.	*Julie Fincher*	*julie.fincher@penton.com*
Senior Marketing Manager	*Molly Roudebush*	*mroudebush@asumag.com*
Marketing Manager	*Susie Barroso*	*susie.barroso@penton.com*
Senior Research Manager	*Elinor Rice*	*elinor.rice@penton.com*
List Rental	*Walter Karl*	*www.walterkarl.com*
Senior VP, Operations/Technology	*Lisa Parks*	*lisa.parks@penton.com*
Production Manager	*Diane Straughen*	*diane.straughen@penton.com*
Ad Production Manager	*Brenda Wiley*	*brenda.wiley@penton.com*
Classified Ad Coordinator	*Linda Sargent*	*linda.sargent@penton.com*
Audience Mktg. Mgr./Circulation	*JoAnn DeSmet*	*joann.desmet@penton.com*

Penton Media

A PENTON MEDIA PUBLICATION
Chief Executive Officer – *Sharon Rowlands, sharon.rowlands@penton.com*
Chief Financial Officer/Executive Vice President – *Jean Clifton, jean.clifton@penton.com*

MEMBER ORGANIZATIONS
- Business Publication Audit of Circulation, Inc.
- Educational Press Association
- American Business Media

EdPress AMERICAN ABM BUSINESS MEDIA BPA WORLDWIDE

***American School & University*, Volume 82, Issue 3,** ISSN 0003-0945 is published by Penton Media Inc., 9800 Metcalf Ave., Overland Park, KS 66212, 913-341-1300.

SINGLE COPIES: To order single copies, call 866-505-7173 (USA) or 847-763-9504 (outside USA).

SUBSCRIPTIONS: Free and controlled circulation to qualified subscribers. Non-qualified persons may subscribe at the following rates: USA: 1 year, $69, 2 years, $109; Canada: 1 year, $79, 2 years, $139; other international: 1 year, $99, 2 years, $159. Prices subject to change. For subscriber services, write to *AS&U*, PO Box 2100, Skokie, IL 60076-7800; call 866-505-7173 (US) or 847-763-9504 (outside US); or visit asumag.com.

POSTMASTER: Send address changes to *AS&U*, P.O. Box 2100, Skokie, IL 60076-7800 USA.

REPRINTS: To purchase quality custom reprints or e-prints of articles appearing in this publication, contact Penton Reprints at 888-858-8851 (www.pentonreprints.com). Instant reprints and permissions may be purchased directly from our website (www.asumag.com); look for the iCopyright tag appended to the end of each article.

CORPORATE OFFICE: Penton Media Inc., 249 W. 17th St., New York, NY 10011; penton.com



The 2009 Architectural Portfolio jury: Guinnane, Shiver, Cumberford, Mirizzi and Lobo.

Will Cumberford
Director of Buildings and Grounds, Blue Springs School District, Blue Springs, Mo.

Will is in his 30th year working in public education. He has served as associate principal for Blue Springs South High School, and now is the director of buildings and grounds for the Blue Springs School District. Two years ago, with the help of outside vendors, he coordinated a $14 million performance contract for energy upgrades to aid in conservation and budget planning. Will is working now on an $86.5 million construction and renovation project at 11 schools. Will is a member of National Association of Secondary School Principals (NASSP), Missouri Association of Secondary School Principals (MASSP), Council of Educational Facility Planners, International (CEFPI), and Missouri Plant Managers (MPM).

Patrick A. Guinnane
Director of Operations, Lower Merion School District, Pa.

Pat's responsibilities include supervising all building and grounds maintenance, custodial and transportation services within the district. He also oversees the district's capital-improvement program, currently consisting of building two new LEED-certified high schools. Pat holds a bachelor's degree in civil engineering, and a master's degree in management, and is a registered professional engineer. Prior to joining Lower Merion, he spent 22 years in the Army with the Corps of Engineers, involved in a variety of construction projects, facilities maintenance and operations.

Caroline Lobo, LEED AP
Associate, Orcutt / Winslow, Phoenix

Caroline heads the Education Studio at the firm, which specializes in K-12 and higher-education projects. Having received her doctorate in environmental design from Arizona State University, Caroline also leads the firm's sustainable-design team. Caroline is passionate about designing meaningful, inspiring learning environments and works with project teams to strive for excellence in education facility design. She has published and presented papers at various conferences and serves on numerous local and national boards; currently she is serving on AIA's Committee on Architecture for Education Leadership Group.

Ray Mirizzi, EFP
Director of Facilities, Cincinnati State Technical and Community College

Ray is responsible for providing leadership for the execution of about $5 million of services annually, providing five major areas of services with a staff of 42 people for the operation of its main campus, and two satellite campuses. The campuses total more than 85 acres with more than 1.3 million square feet of floor space in six major buildings. He is a member of APPA and MAPPA (the Midwest APPA organization), and the Professional Grounds Management Society. He has given numerous presentations on facilities-related topics.

Ray received an associate's degree in ornamental horticulture and an associate's degree in business management from Cincinnati State College, and a bachelor's degree in business administration from Franklin University in Columbus, Ohio. Ray's most recent interest has been focused on developing a comprehensive facilities information system for Cincinnati State to support short- and long-range planning, security operations and routine facility services.

Steven M. Shiver, AIA, LEED AP, NCIDQ
Associate Principal, NAC|Architecture, Seattle

Steve has spent the greater portion of the last two decades managing the design and construction of publicly funded K-12, higher-education and state facilities. He has bachelor's degrees in architecture and in fine arts in interior design from the University of Idaho. His current work focuses on the educational planning, design and construction project phases. Several of Steve's recent projects have received national and regional awards.

He now is managing the design of a unique secondary learning center that will blend several middle and high school at-risk student programs into a single magnet facility. Steve co-chairs the American Institute of Architects' Committee on Architecture for Education PreK-12 subcommittee.


207

Choosing Champions

What makes a great education design? That's the question jury members sought to answer as they reviewed more than 175 examples of school and university design for *American School & University*'s 2009 Architectural Portfolio competition. The five-member jury traveled from their home states of Arizona, Missouri, Ohio, Pennsylvania and Washington to meet in Overland Park, Kan., for two days and deliberate what qualities yield citation-winning designs for education facilities. Among their considerations:

- The design should meet the **stated goal**.
- The design should **enhance learning** by inspiring creativity, fostering and promoting collaboration, and integrating curriculum.
- The design should be **functional**, considering flexibility, community use, a secure environment, community connection, technology, social spaces and outdoor connectivity.
- The design should be **sustainable**, evaluating life-cycle costs, considering the facility as a learning tool and climate-relevant design.

Will Cumberford

Patrick A. Guinnane

Caroline Lobo

Ray Mirizzi

Steven M. Shiver

"This school is reminiscent of the Crow Island School."
p. 16-17

"The choice of materials, design of spaces and treatment of volumes create a light and airy learning environment."
p. 18-19

"Learning opportunities are brought out of classrooms and into circulation areas."
p. 71

"Students and the community are able to interact and connect with this design, while embracing learning opportunities on sustainability."
p. 109



MAIN WINNERS

WILLIAM W. CAUDILL CITATION

Maryann Thompson Architects with
Ingrid Strong
The Children's School
Stamford, Connecticut .... p. 16-17

"This school is reminiscent of the Crow Island School. The design approach plays with volumes that create dynamic learning environments filled with light."
—2009 jury



LOUIS I. KAHN CITATION

schacht aslani architects
Peninsula College, Library and Administration Building
Port Angeles, Washington ....p. 18-19

"The juxtaposition of the new and the old is very intriguing. The choice of materials, design of spaces and treatment of volumes create a light and airy learning environment."
—2009 jury



Visit SchoolDesigns.com.

SPECIAL CITATIONS

Marner Architecture
The Chapin School, Addition and Alterations
New York, New York .... p. 20

"Fantastic juxtaposition of exterior materials while respecting existing building rhythms. The spaces are configured well to maximize daylighting."

—2009 jury



Maryann Thompson Architects
The Atrium School
Watertown, Massachusetts .... p. 21

"Beautiful and elegant transformation of an existing warehouse repurposed as a dynamic K-6 school."

—2009 jury



Treanor Architects
University of Kansas, Krehbiel Scholarship Hall
Lawrence, Kansas .... p. 22

"A unique and warm, home-like atmosphere that blends well into the surrounding neighborhood. The recreation patio and outside dining area are a nice connection to the outdoors."

—2009 jury



The Children's School
Stamford, Connecticut



Maryann Thompson Architects with Ingrid Strong

Design team:
Maryann Thompson, Principal; Martha Foss, Project Manager; Ingrid Strong, James Steel, Tamar Warburg, David Martin, Ania Matteson, Maureen Murphy, Lulu McPhee, Leslie Ferraro

Client:
The Children's School; Maureen Murphy, Director

Capacity:
120

Area:
14,000 sq. ft.

Completion:
September 2007

Photographers:
Chuck Choi; Maryann Thompson

The design of this 14,000-square-foot school was conceived as a "one-room schoolhouse." The roof planes tilt subtly against one another to admit light into the classroom spaces, which are defined without the use of walls. The scheme creates a fragmented reading of the building, appropriating the scale of the building to that of a child.

Designed to achieve LEED certification, this project treads lightly on Earth while heightening the student's sense of relationship to the site. The passive solar design with cross ventilation lowers the overall heating and cooling demands. The building opens to the south for maximum solar gain, and window louvers modulate the summer sun on the south and west elevations.

Natural and regional materials were selected from a durability and sustainability standpoint. Interior finishes free of volatile organic compounds (VOCs) create a learning environment with the best possible air quality. Covered outdoor spaces form an extension of the interior learning spaces. The entry area hosts quiet activities that calm the children upon arrival, acting as a space of mediation between the wings of the building.









"This school is reminiscent of the Crow Island School. The building is multifaceted and adaptable to different age groups. The design approach plays with volumes that create dynamic learning environments filled with light."

—2009 jury





Peninsula College, Library and Administration Building

Port Angeles, Washington







schacht aslani architects
Design team: Walter Schacht, Principal-in-Charge; Jean-Claude Letourneau, Project Architect; Dylan Johnson, Project Manager
Client: Peninsula College; Deborah Frazier, Vice President for Administrative Services
Capacity: 244
Space/student: 68 sq. ft.
Area: 27,500 sq. ft. (library); 7,500 sq. ft. (administration building)
Total cost: $12.5 million
Cost/square foot: $357
Completion: August 2008
Photographer: Laura Swimmer Photography

The new Library and Administration Building create a gateway to the Peninsula College campus, inviting people to engage in the life of the academic community. The one-story, 27,500-square-foot library is organized around a spacious reading room that has a commanding view of the Strait of Juan de Fuca and Vancouver Island to the north. The two-story, 7,500-square-foot Administration Building sits to the east of the library.

The new buildings are linked by an existing concrete and brick arcade, which serves as a pedestrian bridge over the main entry. Originally, the arcade supported a wood-framed structure with eight small faculty offices. The offices were demolished in order to open up the view over the bridge, which is a local icon reflected in the college's graphic logo.

The new buildings are designed in a contemporary design aesthetic of brick, wood, steel and glass that fits with the vernacular of the college's original wood-framed, 1960s structures.

Sustainability is integrated into the design. Heating and cooling are provided by geothermal-well fields that supply an under-floor air distribution system. Daylighting reduces the need for electrical lighting. Rain gardens accept runoff from roof surfaces and create lush planting areas that line the pedestrian routes around the building.











"The juxtaposition of the new and the old is very intriguing. The choice of materials, design of spaces and treatment of volumes create a light and airy learning environment."

—2009 jury







The Chapin School, Addition and Alterations
New York, New York



Marner Architecture

Design team:
Laurence Marner, Partner-in-Charge; Noel Quesada, Project Manager; Heidi de Bethmann, Project Designer

Client:
The Chapin School; Thomas Palermo, Director of Facilities

Area:
66,000 sq. ft.

Completion:
August 2008

Photographers:
Trevor Tondro Photography; Marner Architecture

The 24,000-square-foot expansion to the Chapin School brings life to its strategic goal: supporting excellent education with the finest and most up-to-date resources. This 100-year-old K-12 independent school for girls had outgrown its space because of continual program development.

The addition includes a new science center, a new middle school and new visual-arts center, each with a strong sense of place and identity. Faculty space was added for departmental offices and division offices to strengthen the sense of community in each of these areas and in the other divisions of the school.

All new classrooms are designed to be adaptable to potential future methods of teaching and learning. In all teaching spaces, services, storage and independent study workspace are situated on the perimeter or ceiling; furniture, including art and lab tables, is movable. All rooms are equipped with technology such as interactive whiteboards that enable teachers and students to explore the world far beyond their school walls.

Sustainability is integral to the design. The most readily discernible effect is that classrooms are flooded with glare-free natural light, which is harvested to reduce the electrical demand.

Note: The Chapin School Addition was designed and documented while the lead members of the Marner Architecture design team were at Butler Rogers Baskett. The project was completed by Marner Architecture.





"Fantastic juxtaposition of exterior materials while respecting existing building rhythms. The spaces are configured well to maximize daylighting."

—2009 jury



The Atrium School
Watertown, Massachusetts



Maryann Thompson Architects	
Design team: Maryann Thompson, Principal; William Pevear, Project Manager; Martha Foss, James Steel, Tamar Warburg, David Martin, Ania Matteson	
Client: The Atrium School; Linda Echt and Susan Diller, Co-Directors	
Area: 25,000 sq. ft.	**Total cost:** $2.7 million
Cost/square foot: $108	**Completion:** October 2006
Photographer: Anton Grassl/Esto	

The Atrium School, a progressive K-6 program, looked to the architect to design a facility that called for the adaptive reuse of an open warehouse structure on a limited site in a densely populated residential area. The project was designed and built successfully in less than 10 months despite restrictive permitting and construction constraints.

The oblong site presented challenges, including how best to arrange parking areas, accommodate green space and orchestrate pedestrian and vehicular traffic through the site. The school's entrance and vehicular access were repositioned to the back of the campus away from the building's prior entrance, which faced a main thoroughfare. Cars were routed through the site to minimize the school's intrusion upon the community and reduce delays during peak hours.

Extensive glazing and skylights brighten the previously dark and enclosed warehouse spaces and facilitate cross ventilation. Large glazed garage doors open the assembly areas to the playground and bring in ample southern light. The double-loaded corridor was enlivened with special window nooks, which provide moments of rest and discovery, and an unfolding spatial experience.



"Beautiful and elegant transformation of an existing warehouse repurposed as a dynamic K-6 school."
—2009 jury



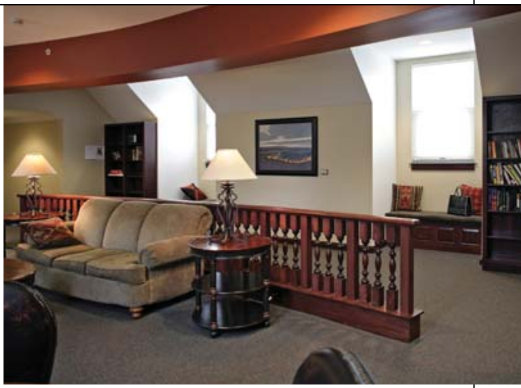




Before

University of Kansas, Krehbiel Scholarship Hall
Lawrence, Kansas









Treanor Architects, PA

Design team: Nadia Zhiri, Joseph Stramberg, Denton Nichols, Craig Stewart	
Client: University of Kansas; Diana Robertson, Director of Student Housing	
Capacity: 50	**Space/student:** 329 sq. ft.
Area: 16,455 sq. ft.	**Total cost:** $3,795,654
Cost/square foot: $230	**Completion:** July 2008
Photographer: Steve Swalwell/Architectural Foto Graphics	

"A unique and warm, home-like atmosphere that blends well into the surrounding neighborhood. The recreation patio and outside dining area are a nice connection to the outdoors."

—2009 jury

Sited adjacent to the University of Kansas campus, the new three-story Krehbiel Scholarship Hall was designed to blend with the historic neighborhood's turn-of-the-century homes. By organizing the hall orthogonally to the grid of the street, and breaking down the massing, scale and materials, the building achieves a strong relationship with the rhythms and patterns of the neighborhood.

By building Krehbiel Hall on a previously developed site, the university reduces sprawl and avoids the need for new infrastructure. A geothermal mechanical system uses the Earth's relatively constant temperature to provide heating and cooling for the building. Although no energy modeling was performed on this project, studies of similar installations have shown an estimated 21 percent reduction in energy usage with this type of mechanical system.

Native Kansas limestone and locally manufactured brick comprise the building's exterior skin. Recovered railing elements, ironwork, spindles, wood paneling and a pendant light fixture were recovered from previously razed buildings on the KU campus and incorporated into the building's interior. Daylight was maximized throughout all private and public spaces.



TEXT™

Virco's all-new TEXT™ Series includes dozens of table, seminar and desk models with more than 15 options and accessories for power/communications, wire management, mobility and storage.



Seminar Tables



2-Student Desks



Tilt-Top Tables



Computer Lab Tables



Meeting Tables

For more information call us today at **800-813-4150**
or visit www.virco.com

VIRCO® - equipment for educators™

GOVERNMENT PURCHASING ALLIANCE
U.S. COMMUNITIES™
Government Purchasers Saving You Money

Children & Schools
GREENGUARD®
Indoor Air Quality Certified

REF# 09151

Circle 111 for more information ■ freeproductinfo.net/asu

ELEMENTARY SCHOOLS

CITATIONS

Cannon Moss Brygger & Associates
Unity Elementary
Sioux City, Iowa .... p. 26

"Dynamic use of colors, shapes and forms to enhance the learning environment. A cooperative community effort was used to help offset the cost and assist in the planning."

—2009 jury



Peter Gisolfi Associates
Hackley School, Kathleen Allen Lower School
Tarrytown, New York .... p. 28

"A nice regional approach that blends well with adjacent campus buildings. Passive sustainable features are sensible and integrated well into the building. The scale is appropriate for students."

—2009 jury



VCBO Architecture
Mountain Green Elementary School
Mountain Green, Utah .... p. 29

"This project, with its smaller learning communities, collaboration areas, intimate social spaces, design vernacular and transparency of spaces, has provided a rich learning environment."

—2009 jury



Visit SchoolDesigns.com.

OUTSTANDING ELEMENTARY SCHOOLS

Unity Elementary
Sioux City, Iowa







Cannon Moss Brygger & Associates

Design team: Todd Moss, AIA, Principal-in-Charge; Julie Burhoop, AIA, Project Architect; Kathy Erion, IIDA, Interiors		
Client: Sioux City Community School District; Larry D. Williams, Superintendent		
Capacity: 567	**Space/student:** 148 sq. ft.	**Area:** 89,107 sq. ft.
Total cost: $9,186,483 (construction)	**Cost/square foot:** $102	
Completion: July 2008	**Photographer:** Paul Brokering	

Many schools are nostalgic brick boxes designed by adults for adults. This school was designed for imaginative children not confined by straight lines and monochromatic colors. It features a variety of shapes, colors, materials and textures. The core spaces were designed to accommodate future expansion.

A cooperative community effort involving the school district and the city (which participated in the cost and planning) was required. Coordination with the district, city, civil engineers, architects, adjoining property owners, and separate site and building contractors was orchestrated to meet schedules and co-occupy the site.

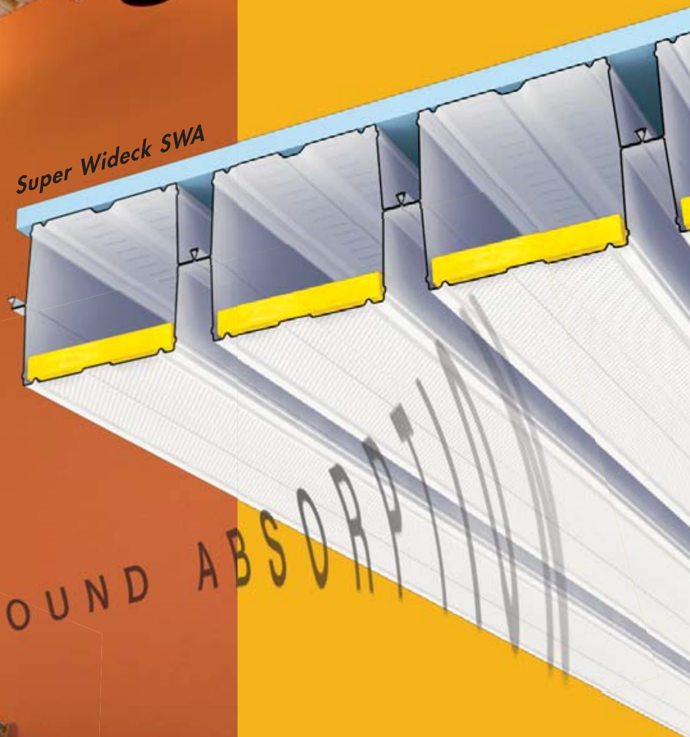
The colors, shapes and textures of the various materials not only gave the building a unique look, but also lowered costs and enhanced the speed of construction. Comparative schools built simultaneously in the district cost 25 percent more and had construction periods three to four months longer.



"Dynamic use of colors, shapes and forms enhance the learning environment. A cooperative community effort was used to help offset the cost and assist in the planning."

—2009 jury





Sound absorption can make a difference…

SUPER WIDECK® Long-Span Roof and Floor Deck Ceiling Systems

Designed to maximize architectural possibilities and creative potential, EPIC Metals' structural roof and floor deck ceiling systems can span up to 55 feet. In addition to architectural versatility, EPIC systems offer an unparalleled degree of interior acoustical control, ideal for eliminating distractions in an educational environment.

Sunrise Elementary School
Cheyenne, Wyoming

Architects: Lantz-Boggio Architects, Englewood, CO and Pappas & Pappas Architects, Cheyenne, WY

EPIC®
METALS CORPORATION

877-696-3742 Toll-Free
www.epicmetals.com

Circle 112 for more information ■ freeproductinfo.net/asu

CITATION

ELEMENTARY SCHOOL

Hackley School, Kathleen Allen Lower School

Tarrytown, New York



Peter Gisolfi Associates

Design team:	Peter Gisolfi, AIA, ASLA; Sandra Mintzes, AIA; Gideon Kipperman, RA; Tomo Kimura, Landscape Designer; Joori Suh, CID, Interiors
Client:	Hackley School; Walter Johnson, Headmaster
Capacity:	280
Space/student:	118 sq. ft.
Area:	33,000 sq. ft.
Total cost:	$11.8 million (includes $1.8 million of sitework)
Cost/square foot:	$303
Completion:	August 2007
Photographer:	Robert Mintzes



The Kathleen Allen Lower School houses 280 students in grades K to 4. It completes the second phase of a campus transformation that began in 1998. During Phase I, a new "meadow" quadrangle, Akin Common, was created. The new C-shaped lower school building creates a protected south-facing play court overlooking Akin Common.

The principal organizing element of the two-story building is a single-loaded corridor facing south and east on each floor. The classrooms are arranged by grade level on the north side of the corridor. The corridors contain child-sized lockers, display boards and built-in-alcoves. The building's scale, furnishings and mood are child-friendly. Patterned tiles on the facades surrounding the playground tell stories; interior floor tile patterns enhance children's games.

The building conserves energy in passive ways. Because the corridor windows are operable, cross-ventilation is promoted through the north-facing classroom windows; the classrooms are cooled with ceiling fans in warmer weather. In the colder months, the south-facing corridors collect solar energy in tile-covered concrete floor slabs and release their heat to supplement radiant ceiling panels.



"A nice regional approach that blends well with adjacent campus buildings. Passive sustainable features are sensible and integrated well into the building. The scale is appropriate for students."

—2009 jury



CITATION

ELEMENTARY SCHOOL

Mountain Green Elementary School
Mountain Green, Utah



VCBO Architecture

Design team: Jeanne Jackson, AIA, LEED AP, Principal-in-Charge; David Cox, AIA, Project Manager; Reinhardt Bsumek, Structural Engineer; Wade Bennion, Mechanical Engineer; Carol Feldman, Electrical Engineer	
Client: Morgan County School District; Ronald Wolff, District Superintendent	
Capacity: 600	**Space/student:** 122 sq. ft.
Area: 73,000 sq. ft.	**Total cost:** $12,702,000 (construction)
Cost/square foot: $174	**Completion:** August 2008
Photographer: Paul Richer/Richer Images	

The design of Mountain Green Elementary School organizes classrooms into intimate student academies, or "small learning communities." Collaboration centers, situated within each of the learning communities, support project-based curriculum by accommodating multiple, flexible group activities. This enables teachers to take lessons outside the boundaries of the classroom and to have shared activities involving several classes, which promotes collaborative learning and helps students integrate knowledge on a variety of levels.

Visitors are greeted by a media center and administrative offices with large expanses of glass that bracket the front entrance. The multipurpose room is sized to accommodate a full basketball court for after-school community use. It also serves as a dining room, supported by a full-service kitchen. The site is designed to incorporate two safe dropoff/pickup zones, one for parents and one for buses, to ease the before- and after-school traffic.

Sustainable features of the school include proper solar orientation, multi-level lighting, trestle wood building materials and a geothermal mechanical system.

"This project, with its small learning communities, collaboration areas, intimate social spaces, design vernacular and transparency of spaces, provides a rich learning environment."

—2009 jury







Hopewell Elementary School, Renovation and Addition
Oxford, Pennsylvania



AP3C Architects

Design team:
Edward C. Eimer, AIA, Partner-in-Charge; Martin J. Breen, LEED AP, Project Designer/ Project Manager; Peter Orybkiewicz, Project Architect

Client:
Oxford Area School District; Charles L. Lewis, Business Administrator

Capacity:
825

Space/student:
147 sq. ft.

Area:
121,000 sq. ft.

Total cost:
$21.5 million

Cost/square foot:
$177

Completion:
August 2009

Photographer:
Lawrence A. Goldfarb





This comprehensive renovation and addition project transformed an outdated 1960s middle school into a contemporary fifth/ sixth-grade center for the Oxford Area (Pa.) School District. The 121,000-square-foot facility accommodates 825 students and has more than doubled the original school's size.

The layout is designed to reinforce the district's Dyad educational concept used specifically for this level of student. The Dyad concept involves pairing two classrooms together and linking them with a communicating door. One of the classrooms is dedicated to science and math, and the other is dedicated to history and language-based subjects. Teachers change rooms via the connecting doorway. This reduces time lost when students change classrooms and reinforces the team approach among faculty members.

Careful placement of a new loop road to provide more secure dropoff created the opportunity for a new playground. Several mature shade trees and more than 90 percent of the existing building shell were preserved. Selective investments in sustainable technologies and materials will enable this facility to be the most efficiently operated building in the district.





Hillside Elementary School
New Richmond, Wisconsin











Designed for green construction, Hillside Elementary School incorporates many elements of sustainable architecture. The architect and the School District of New Richmond worked together to set and evaluate energy-performance goals for the new school, ensuring a minimal carbon footprint for the new facility.

Some of these sustainable features and elements:

•Protecting the downstream wetlands during construction.

•Capturing runoff in temporary holding basins with a "treatment train" that provides clean water runoff as it enters the city and county stormwater-management system.

•Using integrally colored concrete floor slabs that were ground and highly polished to serve as finish flooring in the classrooms and corridors

•Installing durable and low-maintenance surfaces that require minimal use of cleaning agents.

•Incorporating water-saving features such as low-flow water-saver faucets and dual-level flush-valve toilets.

•Minimizing energy consumption with automated lighting, occupancy sensors, variable-air-volume systems and use of daylight throughout the facility.

•Installing high-energy insulated windows that reduce heating and cool costs.

Sustainable qualities, timeless design and efficiency make Hillside Elementary School a source of community pride.

ATS&R Planners/ Architects/Engineers

Associated firm: Clark Engineering

Design team:
Paul L. Snyder, AIA, CID, NCARB, Planner/ Project Architect/Project Manager; Paul W. Erickson, AIA, NCARB, REFP, Principal-in-Charge; James T. Lange, PE, Mechanical Engineer; Gaylen D. Melby, PE, Electrical Engineer; Terry W. Hochbein, RCDD, NTS, OSP Specialist, Technology; Graham Sones, ASLA, Site Development; Kim Sorenson, Interior Design

Client:
School District of New Richmond; Morrie Veilleux, Superintendent

Capacity:	Space/student:	Area:
600	142.5 sq. ft.	85,510 sq. ft.
Total cost: $13,606,099	**Cost/square foot:** $159.12	**Completion:** October 2007

Photographer:
Richard Peters/InsideOut Studios

Cherry Lane Elementary School, Library
Carle Place, New York





BBS Architects & Engineer

Design team: Roger P. Smith, AIA, LEED AP; Kevin J. Walsh, LEED AP; Tracy Hansen, RA	
Client: Carle Place Union Free School District; W. Michael Mahoney, Superintendent	
Area: 6,240 sq. ft.	**Total cost:** $2,150,000
Cost/square foot: $344	**Completion:** August 2006
Photographer: Amiaga Photography	

Over the years, classrooms at Cherry Lane Elementary School had been converted for library use. The time had come for these spaces to revert to classroom utilization, and this provided an opportunity to add a new library to the building. The project required spaces for book stacks, small-group instruction, group reading/performance and a "tract" center for the storage and assembly of multimedia materials.

The base construction for the addition is steel frame with masonry wall infill. Exterior materials were selected to give the addition a vocabulary of its own without divorcing it from the parent structure. Multiple sound, video projection and computer systems were required for incorporation of technology into the library curriculum.

Color and geometric shapes abound throughout the design to appeal to children. On the interior, a carousel theme dictates the organization of spaces and establishes the curved exterior wall. Artist Scott Gustafson donated use of his images from the book, *Classic Fairy Tales,* for use in the library's interior, tying together the joint themes of the carousel and childrens' literature.





Millstadt Consolidated School Primary Center

Millstadt, Illinois



BLDD Architects, Inc.

Design team:
Kimberly Kurtenbach, AIA, LEED AP; Randy West, AIA; Bruce Maxey, AIA, LEED AP

Client:
Millstadt Community Consolidated School District #160; Allen Scharf, Superintendent

Capacity:
400

Space/student:
98 sq. ft.

Area:
39,316 sq. ft.

Total cost:
$5,533,129

Cost/square foot:
$140

Completion:
February 2008

Photographers:
Kimberly Kurtenbach; Marian Kraus

Millstadt Community Consolidated School District #160 is a small, rural district that had been experiencing moderate growth. This growth prompted the district to undergo an extensive community-engagement planning process, resulting in referendum passage. The district elected to build a 39,316-square-foot primary center for children in pre-K to second grade, on a 16-acre tract of land adjacent to the village park. Creating a safe and secure environment where young children would be encouraged to learn; maximizing usable space;and building within the district's limited budget were project objectives.

The heart of the building contains shared spaces—the multipurpose room, fine-arts room and the library; the academic wings, which house classroom space, can be secured after school hours to enable those shared spaces to be open for community use.

The kindergarten wing is made up of five kindergarten classrooms and one pre-kindergarten classroom, and a separate first- and second-grade wing contains five classrooms for each grade level. The pre-kindergarten classroom has direct, private exterior access to an outdoor playground with a covered, paved area. This private access also enables parents to pick up their children without disrupting other classes.

Overall, the efficiency of the floor plan is clear and simple to navigate for young students, and the location of the school enables it to become an integral part of village activities.









East Stroudsburg Elementary School
East Stroudsburg, Pennsylvania







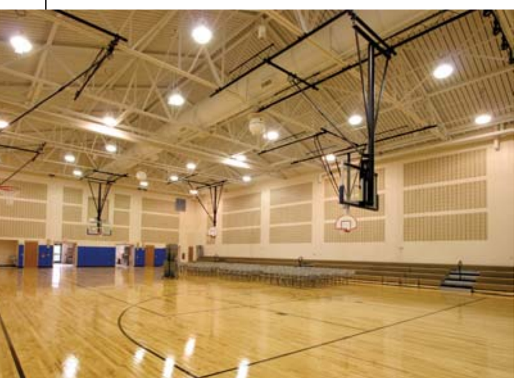
Buchart Horn, Inc./BASCO Associates

Design team:
Anthony J. Shinsky, AIA, LEED AP, Principal-in-Charge; Douglas W. Graby, RA, LEED AP, Project Manager; Steven F. Selby, Field Representative; Robert G. Cramer, PE, Structural Engineer; Michael G. Miller, PE, LEED AP, Mechanical Engineer; Christopher W. Harman, Electrical Designer; Charles E. Walls, PE, PLS, Civil Engineer

Client:
East Stroudsburg Area School District; Rachael Heath, Superintendent

Capacity:	Space/student:	Area:
1,050	115 sq. ft.	121,044 sq. ft.
Total cost:	**Cost/square foot:**	**Completion:**
$30,630,313.43	$253.05	August 2008

Photographer:
Gene Schenck



The architect prepared a districtwide feasibility study, which led to the decision to build a new elementary school. East Stroudsburg Elementary School was designed as a K-5 prototype. After touring a similar school, school board members decided to proceed with a three-story facility designed to accommodate the growing student population.

The gymnasium can be isolated for after-school events in order to maintain security. A large-group instruction room on the third floor overlooks the main entrance plaza. Future expansion areas are provided at various locations to increase the capacity to 1,250. Teaching spaces incorporate natural light to enhance the learning environment. To keep energy costs minimal, an air-cooled chiller system with off-peak ice generation in underground storage is used.

The presence of rock, not uncommon in the area, provided challenges during site excavation of the site, a former golf course. The site design successfully separated the parent dropoff from the bus loading area. The campus can accommodate 20 buses, 120 staff/visitor parking spaces and eight handicapped spaces.

Graham Elementary School
Saint Paris, Ohio



Buehrer Group Architecture & Engineering, Inc.

Design team:
Kent Buehrer, AIA, PE, LEED AP, Project Manager; Huber Buehrer, FAIA, LEED AP, Ed Glowacki, AIA, LEED AP, Project Architects; Don Burris, Construction Administrator; Jamie Tscherne, IIDA, LEED AP, Interior Designer; Sam Muhsen, PE, LEED AP, Structural Engineer; Corey Zachel, PE, LEED AP, Electrical Engineer; Chris Gaffney, PE, LEED AP, Mechanical Engineer

Client:
Graham Local School District; James Zerkle, Superintendent

Capacity:
1,040

Area:
120,055 sq. ft.

Total cost:
$14,920,797

Cost/square foot:
$124.28

Completion:
August 2007

Photographer:
Howard Doughty



Graham Local School District in rural Ohio is named for A.B. Graham, founder of the 4-H agricultural program. Covering more than 185 square miles, Graham is one of the largest districts in the state.

To better serve the needs of this large district, a new Graham Elementary School was designed to replace two K-5 schools, Graham South and Graham North. The school accommodates 1,040 students with seven classrooms for each grade level in separate pods. Each grade includes a 900-square-foot special-education classroom with operable partitions. A common extended-learning area is shared among students in each grade to enhance interaction and learning within a community space.

Color distinctions in corridors provide a visual pathway for younger students to navigate their way to classrooms. Primary colors are featured throughout the interior design of grades K to 2, and grades 3 to 5 are highlighted by a vibrant secondary color scheme.

A naturally lighted media center provides a stimulating environment for young students to learn and grow into a bright future.





Jefferson Elementary School
Jefferson, Ohio





Buehrer Group Architecture & Engineering, Inc.

Design team:
Brent Buehrer, AIA, LEED AP, Project Manager/Architect; Norm Perala, Construction Administrator; Jamie Tscherne, IIDA, LEED AP, Interior Designer; Sam Muhsen, PE, LEED AP, Structural Engineer; Cory Zachel, PE, LEED AP, Electrical Engineer; Chris Gaffney, PE, LEED AP, Mechanical Engineer

Client:
Jefferson Area Local Schools; Doug Hladek, Superintendent

Capacity:
659

Area:	**Total cost:**
79,914 sq. ft.	$11,177,383
Cost/square foot:	**Completion:**
$139.87	2007

Photographer:
Howard Doughty

The Village of Jefferson is in Ashtabula County in northeastern Ohio in a community known as the "Philadelphia of the West." Founded in 1803 by a U.S. Postmaster during Thomas Jefferson's administration, the early plans of Jefferson, Ohio, were based upon Georgian Architecture styles. Jefferson Elementary School features a stunning clock tower main entrance piece to capture and reflect the rich architectural history of the community.

Jefferson Elementary is a K-6 school that accommodates 659 students with four sections per grade level. The school site was carved out of an existing 25-acre delineated wooded wetland site. A two-story building design was used to minimize the size of the building footprint, which lessened the area of disturbance to the precious wetlands to less than a half-acre. Maintaining the pristine character of the site was a priority of the school board, and creates unique children's environmental educational opportunities.

The age-sensitive design places the younger children on the lower level and the older children on the upper level.





Rock Creek Elementary School
Rock Creek, Ohio











The new Rock Creek Elementary is on a property adjoining the original 1869 Colonial Georgian-style school. Through multiple community meetings, a consensus was formed to use a Colonial Georgian design to mimic some of the architectural details of the 1869 structure.

Designs for a grand portico entrance and 18-foot-tall cupola on the roof ridge delighted the district and local community. The location of the new school and access to the original were important because it was unclear initially whether the village of Rock Creek would retain the original building.

The mission of Rock Creek Elementary is "to work together to create a safe, positive learning environment where all students can be successful." In order to serve the district's needs, a one-story design was selected for the K-6 school.

The school accommodates 450 students with separate grade-level wings. Three classrooms per grade level with an accent color on the instructional/learning wall draw attention to the front of the classroom, enhancing the learning experience for young students.

Buehrer Group Architecture & Engineering, Inc.

Design team:
Brent Buehrer, AIA, LEED AP, Project Manager/Architect; Norm Perala, Construction Administrator; Jamie Tscherne, IIDA, LEED AP, Interior Designer; Sam Muhsen, PE, LEED AP, Structural Engineer; Corey Zachel, PE, LEED AP, Electrical Engineer; Chris Gaffney, PE, LEED AP, Mechanical Engineer

Client:
Jefferson Area Local Schools; Doug Hladek, Superintendent

Capacity:
450

Area: 59,930 sq. ft.	**Total cost:** $9,277,725
Cost/square foot: $154.80	**Completion:** April 2008

Photographer:
Howard Doughty

Elgin Academy, Harold D. Rider Family Media, Science and Fine Arts Center Project · *Elgin, Illinois*



DLA Architects, Ltd. (Dahlquist and Lutzow Architects)

Design team:
Bruce R. Dahlquist, AIA, LEED AP, Principal-in-Charge; Tracy Biederstadt, LEED AP, Project Manager; Berg Engineering Consultants, Ltd., MEP/FP Engineer; Pease Borst and Associates; Structural Engineer; W-T Civil Engineering, LLC, Civil Engineer; Threshold Acoustics LLC, Acoustical Consultant; Tezca Environmental, Landscape Architecture; ATC Associates, Environmental Consultant; Pepper Construction, Construction Manager

Client:
Elgin Academy; John Cooper, Head of School

Capacity: 600	**Space/student:** 69 sq. ft.
Area: 41,380 sq. ft.	**Total cost:** $9,640,217
Cost/square foot: $232.97	**Completion:** October 2008

Photographer:
Alex Romanovsky/DLA











The Rider Family Media, Science and Fine Arts Center is a contemporary counterpoint to Elgin Academy's historic campus. On a remediated brownfield, the site provides enclosure to the campus. Facing the quad, the facility respects the height and massing of the existing traditional campus architecture, while its outward-facing facade reacts to the vitality of the adjacent urban corridor. Reflecting green/sustainable design principles, it is LEED registered with a certification goal of gold.

Integral to the design was the decision to create a high-performance, energy-efficient and environmentally responsible educational facility providing students with a healthful, innovative educational experience. The consolidation of the high school math, science and visual/performing-arts programs within the facility has encouraged interdepartmental student and facility planning/interaction; the new student commons serves as the catalyst. Furthermore, the sustainable principles incorporated into the design are being incorporated into Elgin Academy's curriculum.

Joint community use is another component of the building's program. The new building also is home to the Elgin OPERA, Elgin Theater Company and other community groups.

Paradise Elementary School
Paradise, Pennsylvania





EI Associates

Design team:
Navarro & Wright Engineering, Site Engineer; Baker Ingram Associates, Structural Engineer; Moore Engineering, MEP Engineer; 7Group, LEED Consultant; BETA Engineers PC, Commissioning/Enhanced Commissioning Agent; Acoustic Dimensions, Acoustical Consultant; Fidevia, Construction Manager; Lobar, Inc., General Contractor; CMC, Inc., Mechanical Contractor; R.S. Reidenbaugh Corp., Electrical Contractor; Shannon A. Smith, Inc., Plumbing Contractor; Smith System, Furniture Contractor

Client:
Pequea Valley School District; John Bowden, Business Administrator

Capacity: 600	**Area:** 91,335 sq. ft.
Total cost: $17,673,718.92	**Cost/square foot:** $195.05

Completion:
December 2008

The new Paradise Elementary School is expected to be the first elementary school in Lancaster County, Pa., to achieve LEED gold certification. The design of the building took into account several environmental and economic considerations. The most predominant was improving the core learning spaces and reducing energy.

The design maximizes the daylight flowing into the interior spaces. The classrooms are stimulating and productive environments for children to learn; furniture and cabinetry optimize storage space.

The building has colorful graphics and banners that reinforce the building's sustainable principles.

The entire school is designed to maximize efficiency by serving the district's new and expanded educational program needs, as well as providing a space for community after-school activities.



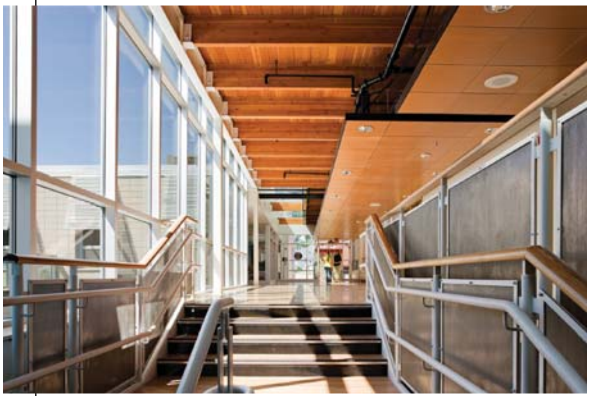




C.W. Morey Elementary School
Lowell, Massachusetts









Flansburgh Architects

Design team:
David Croteau, AIA; Kelley Banks, AIA

Client:
City of Lowell; Jay Lang, Assistant Superintendent

Capacity:
535

Space/student:
127 sq. ft.

Area:
67,785 sq. ft.

Total cost:
$17,430,000

Cost/square foot:
$257

Completion:
May 2009

Photographer:
Robert Benson

This two-story, 68,000-square-foot elementary school for 535 students is situated in a dense residential neighborhood of single-family homes. It was built adjacent to the old school—a large, imposing 100-year-old structure.

The new building employs a scale and massing closely aligned with the surrounding houses. The street elevations, which face east and west, are composed of small facade segments with punched window openings and a horizontal brick pattern to address the neighboring facades.

The longer north and south facades have large classroom windows that include fixed exterior sun shades on the south side to minimize heat gain and glare, while enabling views to green play areas.

The building's modular layout uses repetitive building systems to reduce first cost and maximize operational flexibility. Its compact plan minimizes the amount of costly exterior wall. The structural system is an economical combination of exposed wood beams, wood decking and steel posts. Skylights, clerestories and interior glazing in classrooms, gymnasiums, the cafeteria, and library flood the building with natural light and view-sharing.

Lee H. Means Elementary School
Harlingen, Texas



Gignac & Associates, LLP

Design team:
Raymond Gignac, AIA; Rolando Garza, AIA; Carolyn James, AIA; Juan Mujica; John Silva

Client:
Harlingen Consolidated Independent School District; Steve Flores, Superintendent

Capacity:
750

Space/student:
110 sq. ft.

Area:
83,000 sq. ft.

Total cost:
$11.6 million

Cost/square foot:
$139.76

Completion:
December 2008

Photographer:
Richard Payne

This new elementary school for grades pre-K to 5 has classroom wings arranged in a radial array to enable easy access to common facilities such as the library, and science and art classrooms. The building incorporates sustainable design principles such as energy-efficient systems and daylighting. A state-of-the-art technology infrastructure has been incorporated in the entire campus.

The project also includes a 4,500-square-foot multipurpose room for physical education and assemblies.











Swiftwater Elementary Center

Swiftwater, Pennsylvania











This large 1,200-student (expandable to 1,400) K-5 elementary school promotes smaller learning communities by grouping a cluster of classrooms for each grade. Central to the classroom clusters, a multifunctional area is provided that can be divided into four flexible classrooms or opened into a large, flexible area for other educational opportunities.

Shared communal spaces (the library, gyms, cafetorium, art and music areas) are separated from the classroom area for security when the building is used after hours. Music and art classrooms back up to the stage for easy access for rehearsals and stage-related productions.

The two-story classroom houses are constructed of steel studs, exterior sheathing and sprayed-on insulation. The exterior finish has a masonry base and cementitious horizontal lap siding above. Because of the height of the gymnasium and cafetorium spaces, these areas are constructed of steel frame and masonry backup.

The mechanical system is a variable-air-volume system for heating and cooling with all mechanical equipment situated under the pitched roofs to protect it from the extended winter conditions.

Gilbert Architects Inc.

Design team:
Danielle Hoffer, Principal-in-Charge; Scott Adams, Senior Project Manager; Fu Kha, Project Manager; Kelly Fox, Interior Design; James McComsey, Project Director; Kevin McCandless, Project Director

Client:
Pocono Mountain School District; Dwight Pfennig, Superintendent

Capacity:
1,200

Space/student:
175.97 sq. ft.

Area:
211,165 sq. ft.

Total cost:
$41,487,488

Cost/square foot:
$196.47

Completion:
August 2008

Photographer:
Nathan Cox Photography

Centralia Intermediate School
Centralia, Missouri



Hoener Associates, Inc., Architects

Design team:
Mark Reuther, Project Principal;
Wade Welch, Project Architect

Client:
Centralia R-VI School District;
Darin Ford, Superintendent

Capacity:
360

Area:
50,000 sq. ft.

Total cost:
$7,525,336

Cost/square foot:
$150.51

Completion:
March 2009

Photographer:
Brad Noblitt Photography



Centralia Intermediate School is designed to accommodate grades 3 to 5. The design includes 14 standard classrooms; individual art, science and music classrooms; special education; and gifted classrooms. Shared resource areas support standard classrooms. A library/media center with a reading area, PC stations, and stack and group table seating is provided. Multipurpose/cafeteria space includes a raised performance platform and storage. A full complement of support spaces also is provided, including a book room, administration suite, nurse's office/sickroom, faculty workroom/lounge, full-service food preparation, serving and storage spaces.

The facility incorporates a fiber-optic network backbone, and each classroom is wired to support the eMINTS educational program. Standard classrooms include an interactive whiteboard and computers for individual or two-students-per-computer configuration. The facility incorporates an energy-efficient HVAC system and individual classroom temperature control.

A main entrance with a lobby, and a secondary entrance, lobby and concession area can be secured from the balance of the building to facilitate after-hours community use of the multipurpose area.





River Crest Elementary School
Hudson, Wisconsin



Hoffman, LLC	
Design team: Michael Borski, AIA; Catherine Cruickshank, Senior Project Designer; Amanda Saylor, Interior Designer; Mark Boehlke, Senior Land Planner; Mark Hanson, Director of Sustainable Services; Sam Statz, Director of Construction Services; Joe Harvey, Project Manager; Curt Thiel, Field Superintendent; Beth Piepkorn, Project Administrator; Nathan Balthazor, Field Engineer	
Client: Hudson School District; Mary Bowen-Eggebraaten, Superintendent	
Capacity: 588	**Space/student:** 159 sq. ft.
Area: 93,456 sq. ft.	**Total cost:** $12.1 million
Cost/square foot: $129	**Completion:** August 2008
Photographer: FotoGraphix	

Designed for 588 students, River Crest Elementary School consists of four sections of grades K to 5 and two early-childhood classrooms, all of which have an interactive whiteboard, tack walls, operable windows and a unit ventilator for individual temperature control. Each pair of classrooms shares a storage room and a resource room. The classrooms are clustered in wings, with no more than two grades in each, and doors that enable them to be shut off from the rest of the school. The central core consists of the shared spaces—the administration, media center, gymnasium, cafeteria, art and music classrooms—which the community can use after hours.

To relate to its partially wooded, sloping, 40-acre site, neutral colors were chosen for the brick and burnished block exterior. The irregular west facade echoes the nearby St. Croix River. The effect of the series of metal roof arcs pointing toward the large arc of the gym roof evokes a windswept prairie or cresting waves, consistent with the name of the school. The wave theme is carried into the school's interior, where it appears painted on walls, etched into the curved glass wall of the media center, and in the media center and foyer ceilings.

A large mural dominates the wall opposite the foyer. Painted with the same low-VOC paints used throughout the school, it depicts the history of Hudson and the importance of the river. Each wing has a different color scheme based on the four seasons to help with wayfinding. The environmental themes reflect the district's vision of a sustainable learning environment, with healthful, daylighted spaces, energy and water efficiency, and operational savings, and an emphasis on environmental education. The school has been certified gold under the LEED for Schools v2.0 rating system.













"The final 'wow' for community members was when the cost per square foot was beneath the area cost per square foot of conventional construction—not even green construction. That was the extra 'wow' that people in the community were thrilled about. We wanted our community, our taxpayers, to know that they were getting a great value for their investment."

—Mary Bowen-Eggebraaten, Superintendent, Hudson School District





Westside Elementary School
Valdosta, Georgia









A new Westside Elementary K-5 school was designed in 2007, and constructed and occupied in 2008. An existing 15-acre site includes reuse of the gym and music buildings. Recycled concrete slabs were used for a paving base.

The new buildings have space for a future 1,000-student capacity for the common area and 750-student classroom capacity; space for an additional 250 will be added in the future. The two-story design minimized the building footprint and created separate upper- and lower-grade playgrounds. Classrooms are 25 percent larger than state standards to accommodate technology.

The design is responsive to the school board's need to recycle a historically significant site shared with the community. The generous use of brick, glass and daylighting provides an open, secure and energy-efficient design. Green design features include:

•The use of regional and recycled materials.

•Energy-efficient glazing in large glass lobby.

•Clerestories providing ample natural light.

•Water-saving plumbing fixtures.

•Sensory occupancy lighting.

•Cool roof materials.

•Well-utilized site design.

J. Glenn Gregory and Associates Architects PC

Design team:
J. Glenn Gregory Architect, AIA, Architect of Record

Client:
Lowndes County Board of Education; Creacy Sermons, Principal

Capacity:
750 (with supporting space for 1,000)

Area:	**Total cost:**
130,000 sq. ft.	$15 million
Cost/square foot:	**Completion:**
$115	August 2008

Photographer:
Tracy Gill

General Beadle Elementary
Rapid City, South Dakota



Neumann Monson Wictor Architects

Associated firm: Hermanson Egge Engineering, Inc.

Design team:
Kenneth P. Wictor, Partner; Vicki Reuckert; Henry Henchal, AIT; Larry Hermanson, Partner, H&E

Client:
Rapid City Area School District No. 51-4; Peter Wharton, Superintendent

Capacity:	Area:
523	98,444 sq. ft.
Total cost: $11,539,025 (building and equipment)	**Cost/square foot:** $117.21 (building and equipment)

Completion:
December 2007 (Phase 1); August 2008 (Phase 2)





General Beadle Elementary is a replacement preschool-to-5 facility in a neighborhood with significant social and economic problems. The school and community studied programs, services and the facility location for two years.

The solution was to build a community school with enhanced education programs and shared community services, all at the existing school site.

Medical, dental and mental-health services are provided at an in-house clinic. The media center is shared with the city library. Other shared facilities include family education, evaluation and training spaces for outside agencies.

Classrooms are grouped around extended-learning areas accommodating multi-age, small and large groups. There are one-on-one remedial spaces for core subjects and two outdoor classrooms.

The school commons is near the main entrance to serve neighborhood and community functions.

Without available space to relocate students during construction, the existing building remained until students could move into the new school. That required a two-phase design and construction schedule. The second phase was completed after demolition of the existing building.



Brass Community School
Kenosha, Wisconsin









Neighborhood revitalization efforts received a substantial boost when plans were revealed for a new elementary school to anchor its former American Brass Company redevelopment site.

Sited amongst retail, residential and mixed-use buildings, the new Brass Community School replaces two nearly century-old school buildings and doubles as a community center for this re-emerging neighborhood. The K-5 school efficiently utilizes its small, inner-city site by employing a two-story plan, resulting in ample soft and hard outdoor play areas for its 450 students.

A center "street" monitored by the school office organizes various building elements, including the gymnasium, library, computer lab and cafeteria, and classroom corridors connect to it directly.

Showroom windows along the "street" provide vistas into the library, and display space for new arrivals and age-appropriate reading materials. Classroom window proportions and brick detailing replicate the look and rhythm of the former industrial buildings.

This inner-city brownfield site, once a symbol of lost jobs and industrial decay, now symbolizes its renaissance.

Partners in Design Architects

Design team:
Thomas J. O'Connell Jr., Jeff Bridleman, Eric Migrin

Client:
Kenosha Unified School District; Dan Weyrauch, Principal

Capacity:
450

Space/student:
162 sq. ft.

Area:
72,725 sq. ft.

Total cost:
$10 million

Cost/square foot:
$138

Completion:
August 2008

Photographer:
J.J. Images

Dr. John Grieco Elementary School
Englewood, New Jersey



RSC Architects

Design team:
John P. Capazzi, Principal; John Petrou, Project Architect; Alberto Abreus, Construction Administration

Client:
Englewood Board of Education;
Richard Segall, Interim Superintendent

Capacity:
780

Area:
90,000 sq. ft.

Total cost:
$18 million

Cost/square foot:
$200

Completion:
December 2008

Photographer:
Paul S. Bartholomew









Dr. John Grieco Elementary School is the first new school to open in the city of Englewood in more than half a century. Named for the late visionary educator and former superintendent, the 90,000-square-foot elementary school was part of a districtwide plan by the Englewood Board of Education to alleviate crowding throughout the district. The school, which has an operating capacity of 780 students, is home to children in the first, second and third grades.

The three-story, state-of-the-art facility houses 48 classrooms, art and music rooms, faculty lounges, a library/media center, gymnasium and a colorful cafeteria that doubles as a multipurpose room. Ornate brick and masonry work adorns the exterior of the building, and an arched metal awning and two-story curtain of green spandrel glass grace the front entranceway.

Once inside, visitors step into an open foyer and reception area flanked by administrative offices and an adjoining nurse's suite. Other design features include energy-efficient lighting, elevator access to the upper floors, tiles made from recycled materials, an outdoor playground and a landscaped courtyard with a sitting area.

Corbin Primary School
Corbin, Kentucky



Sherman Carter Barnhart

Design team: Steve Sherman, AIA; Kevin Cheek; Darrell Douglas, ASLA, LEED AP; Gwen Burgess, LEED AP; Fred Eastridge, PE; Troy Fraley	
Client: Corbin Independent School District; Ed McNeel, Superintendent	
Capacity: 600	**Space/student:** 124 sq. ft.
Area: 74,185 sq. ft.	**Total cost:** $12,455,025
Cost/square foot: $167.89	**Completion:** August 2008
Photographer: Marshall Ray/Ray Images	

Technology and design motifs are not the only items setting Corbin Primary apart from other elementary schools—the school's layout is unique and is the result of a collaborative design process among the architect and teachers. The result creates three different school environments.

An old-time railroad clock and a ceiling that recalls the bygone railroad depot greet students, teachers and staff. The railroad motif continues throughout the building. The old-time look is a celebration of the area's cultural and historical heritage, yet tucked into each room is the latest in technology.

The "heartbeat" of the school is the railroad-themed media center. Visitors are greeted by a water tower bearing Corbin's name. Each corner of the room has a workspace for students—storytelling, creation, presentations and traditional library space.

Branching off from the media center are the school's three "learning families." Each learning family has a common area with computers and three classrooms, one for each grade level. The pod structure eliminates the empty, lifeless hallways of schools past and creates a "home" atmosphere for students. It's also better for security reasons because each learning family can be locked down in case of emergency.







Sycamore Creek Elementary School

Raleigh, North Carolina



Small Kane Architects, PA

Design team:
Neal Conley, AIA, Architect; The Wooten Company, MEP Engineer; McNeely Associates, Landscape Architect; Sepi Engineering, Civil Engineer; Atlas Engineering, Roofing Consultant

Client:
Wake County Public School System; Brian Conklin, Senior Director of Facilities Design and Construction

Capacity:
800

Area:
103,444 sq. ft.

Total cost:
$16,080,622

Cost/square foot:
$155.45

Completion:
August 2008

Photographer:
Marc Lamkin







Sycamore Creek Elementary is a design adaptation of an elementary school prototype model for the Wake County Public School System.

The project's main goal was to design a building to accommodate 800 students, yet maintain a compact building footprint, and maximize the school's space flexibility while positioning the facility on a small site. The two-story plan makes efficient use of a limited site, and the facility wraps around an enclosed courtyard. The courtyard provides a safe and secure environment for outdoor teaching and student activities.

South-facing classrooms feature sunscreens and interior light shelves to reflect natural, ambient light throughout spaces. This specific position planning, coupled with light sensors, reduces the amount of artificial light usage and highlights the palette of stimulating primary colors integrated on the floors, walls and finishes. The colors add interest and assist students in wayfinding.

Waterloo Poyner Elementary School
Evansdale, Iowa



StruXture Architects

Design team:
Dan Channer, AIA, LEED AP, Lead Architect; M2B, Structural Engineer; Gilmor & Doyle, MEP

Client:
Waterloo Community School District; Gary Norris, Superintendent

Area:
73,780 sq. ft.

Total cost:
$10,550,904

Cost/square foot:
$143

Completion:
August 2007

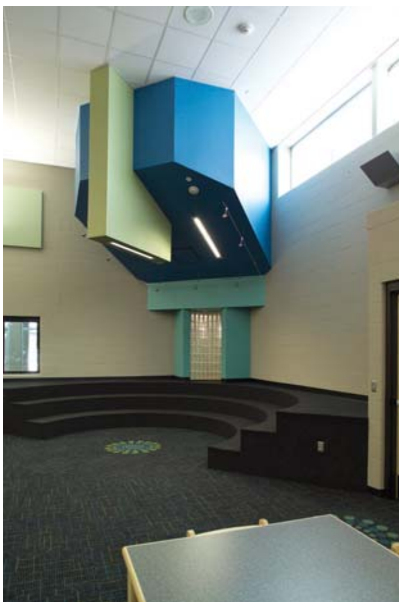
Photographer:
Dale Photographics

Relocating and building a new elementary to replace an outdated facility were the primary challenges involved in this project. The school was built near to the existing middle school to share both outdoor athletic fields and the new school's gymnasium. The facility was designed to accommodate 450 students in grades K to 5 with room to expand as the neighborhood grows around the 14-acre site. The building itself is laid out with separate wings for kindergarten/first grade, second/third grades and fourth/fifth grades.

Incorporated into the design of the school: electronic security systems; high-efficiency geothermal HVAC systems (300 vertical wells); and a recessed gymnasium with direct access to the cafeteria and separated by folding partitions that provide a performance area. Natural lighting is provided to all occupied spaces. Small-group rooms are provided in the second/third-grade and fourth/fifth-grade wings.

The new campus provides expanded recreational areas, as well as separate entrances for deliveries, buses and the general public.









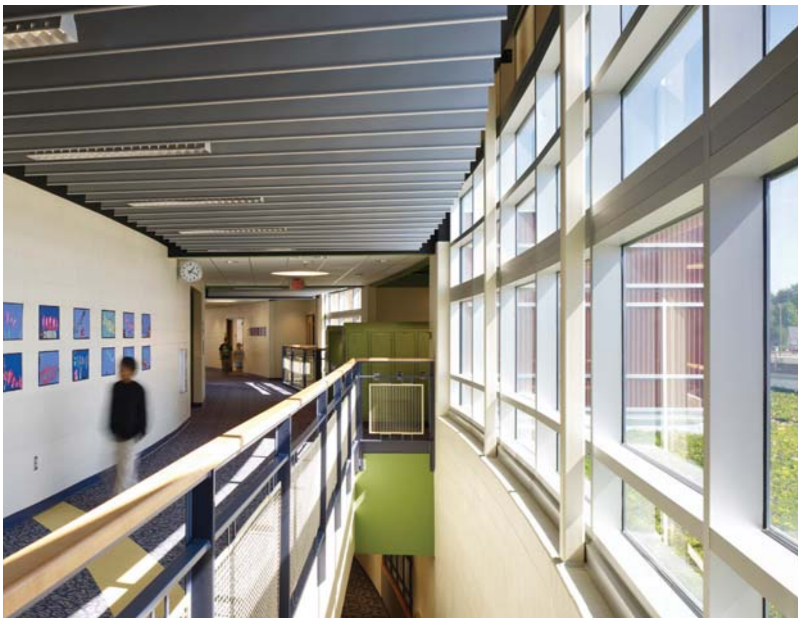


Prairie Ridge Elementary
Kalamazoo, Michigan









Projecting an increase in student population as a result of the "Kalamazoo Promise," which offers up to 100 percent college tuition scholarships to Kalamazoo Public School graduates, the district was committed to investing in its students and the growing community.

The district's first new school in 30 years, Prairie Ridge Elementary, is zoned into two wings: education and community use. Community spaces (gymnasium, media center, cafeteria, music room, art room and computer lab) can be separated from the education wing for evening use. Student learning spaces feature a central commons, flexible classrooms with shared technology rooms, and secure access to mudrooms and classrooms from the bus loop.

Design features incorporate sustainable strategies and create innovative learning environments. The two-story structure nestles into the sloping hillside of its 30-acre site, creating upper and lower level "walk-outs" that maximize both daylight and the Earth's insulating properties. The building is seeking LEED gold certification, and the energy-efficient design has contributed to significant federal tax credits.

A "green" roof patio adjacent to the art studio accommodates student instruction, exhibits and sculpture gardens. The two-story media center opens onto an outdoor amphitheater that is used for classes, storytime and performances. The building utilizes exposed construction and green signage to educate students about construction techniques and sustainable-design strategies.

Prairie Ridge, a blend of indoors and out, community and students, will serve as a flagship for the district as it strives to create facilities that fulfill "The Promise."

TowerPinkster

Design team:
Steve Hoekzema, AIA, NCARB, Principal-in-Charge; Shawn Parshall, AAIA, CDT, LEED AP, Designer; Jim Ross, Project Manager; Rebecca Meggs, IIDA, CSI, NCIDQ-certified, LEED AP, Interior Designer; Ron Masek, ASLA, LEED AP, Landscape Architect; Perry Hausman, PE, LEED AP, Mechanical Engineer; Lentz Becraft, PE, LEED AP, Electrical Engineer

Client:
Kalamazoo Public Schools; Michael F. Rice, Superintendent

Capacity:
600

Space/student:
140 sq. ft.

Area:
84,532 sq. ft.

Total cost:
$10.9 million

Cost/square foot:
$128.95

Completion:
August 2008

Photographer:
Craig Dugan/Hedrich-Blessing

Goshen Elementary School and Albert Cassens Elementary School
Edwardsville and Glen Carbon, Illinois





Woolpert

Design team:
Bill Tongay, AIA, Project Architect; Bret Paden, PE, Engineering; Denise Breunig, AIA, LEED AP, Principal; Jean Maue, RA, LEED AP, Manager

Client:
Edwardsville Community Unit School District 7; Ed Hightower, Superintendent

Capacity:
600 (each)

Space/student:
142 sq. ft.

Area:
85,000 sq. ft. (each)

Total cost:
$27.8 million

Cost/square foot:
$163.53

Completion:
July 2008

Photographers:
Debbie Franke; Woolpert

The architect and Edwardsville Community Unit School District 7, collaborated to deliver two schools, Goshen Elementary and Albert Cassens Elementary. These identical 85,000-square-foot schools were the result of a growth plan developed to address the critical needs of the district. Each facility can accommodate more than 600 students and includes 30 general classrooms, art and music rooms, a 400-seat gymnasium, 2,000-square-foot media center, and a large, open, 200-seat cafeteria/multipurpose space.

The primary challenge was completing the facilities within a demanding 16-month schedule. The design and working drawings for these sites were produced in five months. To meet the time limitations, an identical building design, client-familiar design components and construction phasing were utilized. This helped in producing the design and carrying out the construction. Repetition of materials and elements resulted in an overall reduction in construction costs.

Environmental and sustainable criteria were an essential part of the design, which will result in long-term building operations and maintenance efficiency, and maximize occupant health and comfort.





Farmersville Intermediate School
Farmersville, Texas









An on-site replacement school was being planned when a tornado destroyed the gym of the existing school. The district and architect quickly divided the new project into phases to meet the most urgent needs.

First, a covered play area was erected for immediate use while a replacement gym was designed and constructed. In the master plan, the new gym already was easily accessible to the existing school, so it was built next and used while the rest of the new school was being designed and constructed.

The new school was positioned on the site in a way to minimize disruption to the existing school, which remained in session throughout construction. Finally, demolition of the old school allowed for the new parking lot.

The new school features distinctive masonry patterns and standing-seam metal roofing. Large gathering spaces are designed with adjacent monitoring areas to facilitate supervision. The cafetorium, library and gymnasium all are available for after-hours community use.

The new school has fiber optics, ceiling-mounted digital projectors, wireless Internet access, and a multi-faceted security system with cameras and controlled access points.

WRA Architects, Inc.

Design team:
Barry Canning, AIA, Principal-in-Charge; Hal Hiltz, AIA, CSI, Project Manager

Client:
Farmersville Independent School District; Jeff Adams, Superintendent

Capacity:
675

Space/student:
124 sq. ft.

Area:
83,500 sq. ft.

Total cost:
$10,445,164

Cost/square foot:
$125.09

Completion:
August 2006

Photographer:
Grady L. Frank

Margaret T. Smith Elementary School
Forney, Texas



WRA Architects, Inc.

Design team: Jeff Miller, AIA, LEED AP, Principal-in-Charge; Roberto Ramirez, AIA, Project Manager; Derrick York, AIA, LEED AP, Project Designer; Mike Love, Construction Administration	
Client: Forney Independent School District; Dwayne Thompson, Director of Finance and Operations	
Capacity: 650	**Space/student:** 116 sq. ft.
Area: 75,300 sq. ft.	**Total cost:** $10,899,077
Cost/square foot: $144.68	**Completion:** June 2008
Photographer: Grady L. Frank	



Aside from the requirements of curriculum, technology and safety, the ambition for Smith was to create a stimulating environment that aggressively conserved energy.

The design revolves around a wide central corridor that provides a bright, open and airy atmosphere to help orient the kids in a visually exciting way. One side is a long, gently curved wall behind which are the common areas—library, computer labs, gymnasium, cafetorium—and above which are clerestory windows that bring daylight into the interior. The arc of the curve enables the entire corridor to be supervised by one person, yet without the appearance of a very long hallway. As a person progresses down the corridor, the curve gradually reveals the variety of visual surprises.

A low roofline and compact footprint minimize building envelope and building volume, significantly reducing the load on heating and air conditioning. Daylighting is provided to every instructional space in the school—even interior classrooms—reducing the amount of artificial lighting needed. Light fixtures have motion sensors, automatically turning off when not in use, further reducing electrical demand.





MIDDLE SCHOOLS

CITATION

DLR Group
Pioneer Middle School
DuPont, Washington .... p. 59



"Beautiful use of natural materials. Indoor/outdoor learning connection. Warm and intimate learning environment."
—2009 jury

OUTSTANDING MIDDLE SCHOOLS



p. 61



p. 64

Visit SchoolDesigns.com.

Pioneer Middle School

DuPont, Washington







DLR Group

Design team: Craig Mason, AIA, LEED AP, Designer; Erin Reichman, Project Manager; Shahzad Uppal, Electrical Engineer; Diana Brown, Structural Engineer; Dan Luzius, Ola Jarvegren, Mechanical Engineering			
Client: Steilacoom Historical School District #1; Catherine Davidson, Superintendent			
Capacity: 850	**Space/student:** 127 sq. ft.	**Area:** 108,000 sq. ft.	**Total cost:** $23,836,767 (construction)
Cost/square foot: $220.71	**Completion:** September 2008	**Photographer:** Chris J. Roberts Photography	

Pioneer Middle School is a student-centered building, with particular emphasis on connecting to the physical, social and emotional needs of middle school students. The design vision takes a holistic approach based on mind, body and spirit.

Interior and exterior spaces align on a north/south axis to create a distinct entry sequence and gathering spaces for the school. The library (expressing the mind), fitness center (body) and cafeteria (spirit) border the building's spine, and remind students and visitors of all aspects of adolescent development. The axis also defines two distinct zones within the school: formal learning to the west and community spaces to the east.

A priority of the district was to educate students, staff and the community about energy conservation. This is achieved through an interactive touchscreen at the main entrance that provides water, gas and electricity data. Additionally, signage highlights environmentally responsible practices and building features to enhance middle school curricula.

The project site's southwest corner is forested in part with Washington State's oldest grove of Garry oaks and their surrounding savannah. Preservation of these trees became paramount during site development, as they provided inspiration for the building's design.



"Beautiful use of natural materials. Indoor/outdoor learning connection. A warm and intimate learning environment."

—2009 jury

Divine Savior Lutheran Academy Middle School
Doral, Florida









CIVICA, LLC – Architecture and Urban Design

Design team: Rolando Llanes, RA; Julio Guillen, Ivan Fajardo, Alejandro Diaz, Tomasz Modzelewski, Carlos Perez, Jose Valderrama, Rudy Castillo	
Client: Divine Savior Lutheran Church; Pastor Carl Leyrer, Senior Pastor	
Capacity: 460	**Area:** 44,303 sq. ft.
Total cost: $5,894,785	**Cost/square foot:** $133
Completion: May 2008	**Photographer:** Gaston De Cardenas

Divine Savior Lutheran Academy Middle School is a 44,000-square-foot addition to an existing religious and educational campus in Doral, Fla. The existing campus was composed of a one-story sanctuary, administration and elementary classroom building. The new middle school was added to the east of the existing school and, although separated and significantly taller, is intended to act as an extension of the main building.

The design of the campus yields a series of interconnected programmatic components that begins with the sanctuary to the west and culminates with the gymnasium to the east. The alignment of these elements enhances the institution's presence on the main street, and preserves the picturesque qualities of a small academic campus composed of individual buildings.

The three-story addition has 24 regular classrooms, a science lab, media center, administration areas, kitchen and a regulation-size gymnasium. The architectural character of the exterior is intended to blend with the existing one-story school by way of the extension of an existing cornice element. The cornice establishes a horizontal datum upon which the new classroom building's top two stories rest. The gymnasium is at the rear of the property and anchors the eastern edge of the site. The gymnasium's primary facade redirects the east-west axis of the site toward the recreational field and playground areas.

The classroom wing is an extension of the existing wing of classrooms, and its central corridor is intersected by the building's primary circulation spine leading toward the gymnasium. The gymnasium doubles as the school's cafeteria, and has locker rooms and a multipurpose mezzanine on the second floor, overlooking the basketball court.

Hastings Middle School
Hastings, Nebraska





The Clark Enersen Partners

Design team:
Bernard Rempe, AIA, Principal-in-Charge; JoAnne Kissel, Planner/Programmer; Ron Skoog, AIA, Project Manager; Jeff Chadwick, AIA, Architect; Adam Kent, Mechanical Designer; Christina Onnen, PE, Electrical Engineer; Eric Casper, ASLA, Landscape Architect; Dave Erickson, AIA, Food-Service Consultant; Nick Hanna, Construction Administration

Client:
Hastings Public Schools; Craig Kautz, Superintendent

Capacity:
900

Space/student:
150 sq. ft.

Area:
135,000 sq. ft.

Total cost:
$15,525,000

Cost/square foot:
$115

Completion:
August 2008

Photographer:
Paul Brokering, Inc.

Hastings Public Schools required a distinctive, economical and flexible middle school. The architect met these goals, incorporating several innovative design solutions.

Working closely with a concrete fabricator, the firm devised a new method to create patterned, precast concrete panels. Form liners were used to mold patterns in each panel as it was manufactured. The liners were rotated slightly for each panel, resulting in 240 unique panels. These symbolize each student's individuality.

This technique provided a distinctive building reflecting Hastings' culture and values, and enabled the district to meet a fast-track schedule at about $115 per square foot.

Internally, the main organizing element is a large flexible space that serves as a commons, cafeteria and auditorium. Classrooms are arranged in pods for each grade, with separate entrances by grade. The functional organization promotes flexibility, enhances security and minimizes noise intrusions.







Summit Middle School
Johnston, Iowa



Frevert-Ramsey-Kobes Architects-Engineers, PC

Associated firm: Farris Engineering, Inc.

Design team:
David A. Briden, Project Architect; James E. Egger, Structural Engineer

Client:
Johnston Community School District; Clay Guthmiller, Superintendent

Capacity: 1,000	**Space/student:** 164 sq. ft.
Area: 164,300 sq. ft.	**Total cost:** $17,160,000
Cost/square foot: $104.44	**Completion:** July 2006

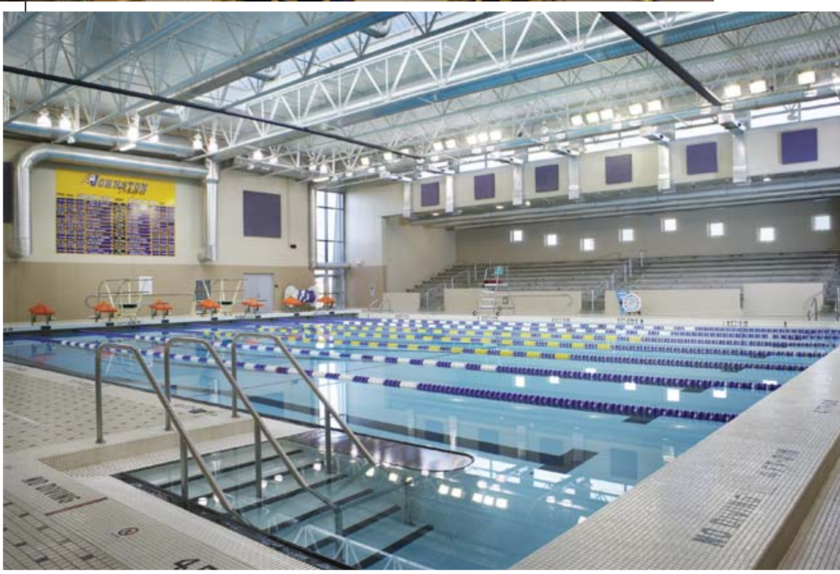
Photographers:
Design Photography Inc.; Positive Image



The new Summit Middle School is designed specifically for grades 6 and 7, and responds with a design that promotes interaction through its open layout. Yet, it maintains an appropriate scale by breaking the facility down into smaller learning communities.

The school is built around the concept of community. Classrooms are clustered into five distinct learning units that foster a sense of collaboration and teamwork. These learning communities are arrayed around a central circular media center, which is capped by a large skylight that brings natural light deep into the core of the building. Circulation routes pass through and around the media center to weave the building together. Extensive interior glazing provides visual interconnection of spaces and allows natural light to reach interior rooms.

The building is designed to provide room for an additional learning community to be added on the second level. The layout also promotes community use of the facility, enabling access to key functions for after-hours use while securing the remainder of the building.








SUMMIT
MIDDLE
SCHOOL







Stallings Island Middle School
Martinez, Georgia









James W. Buckley and Associates, Inc.

Design team:
Craig R. Buckley, AIA, President/Project Architect;
Mark Taylor, Designer; Eric McDaniel, Project Manager

Client:
Columbia County School System; Charles Nagle, Superintendent

Capacity:	Space/student:	Area:
650	192.92 sq. ft.	125,396 sq. ft.
Total cost:	**Cost/square foot:**	**Completion:**
$15,264,083	$121.72	May 2008

Photographer:
Richard L. Johnson

The heart of east central Georgia provides the unexpected setting for a school that evokes both the appearance and ambience of an idyllic mountain top lodge. The rustic elegance of Stallings Island Middle School in Columbia County, Ga., conjures images of chalets and snow-capped peaks even while enduring the heat of a steamy southern summer.

Canted columns crafted of brick and subtly motted native fieldstone create exterior porches that mirror the monumental columns of the entry pavilion, providing design continuity and aid in the intended mood of the two-story school. The painted vertical metal siding, which imitates the look of wood, and embellishment of paired brackets at the eaves bestow the finishing touches on this eye-catching and surprising facade.

The interior color palette is composed of cool greens and blues. Classrooms are organized by grade level. Sixth-grade, administration, the gymnasium and cafetorium are situated on the first floor, and seventh- and eighth-grade, along with the media center, are on the second floor.

William Adams Middle School
Alice, Texas



LaMarr Womack & Associates, LP

Design team:
LaMarr Womack, Todd Brendalen, Albert Soto, Robert J. Garcia, Mark Wessels

Client:
Alice Independent School District; Henry Herrera, Superintendent

Capacity:
2,000

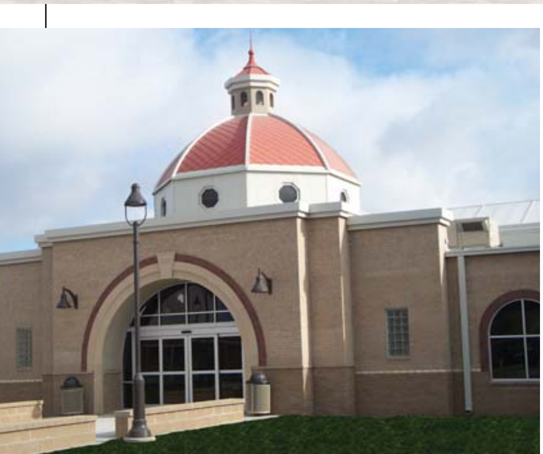
Space/student:
67.80 sq. ft.

Area:
135,593 sq. ft.

Total cost:
$18,811,000

Cost/square foot:
$138.73

Completion:
July 2009









William Adams Middle School took its name from an early Texas pioneer of the historic King Ranch clan who helped establish a town in 1852 called Bandera, which later was renamed Alice. Replacing a 1955 building, the new school conveys the regional architecture of Alice, Texas, which is known for its profusion of spring wildflowers and indigenous plant life. The structure's facade in earth tones and complementary red accent colors sets the backdrop for this southwestern bouquet.

The school offers low-maintenance polished concrete floors. All classrooms are situated on exterior walls with natural lighting. Restrooms use water-conserving fixtures. Dual-switched fluorescent lighting and energy-management air-controlled spaces will offset the initial building cost.

The school contains 53 classrooms, four science classroom/labs, four computer labs, a choir room, band hall, media center, two gymnasiums, locker rooms, training/weightroom, a kitchen, cafetorium with stage, administrative offices, work/conference rooms, teacher's lounge and several support rooms. Security starts with separate bus and parent dropoffs, with all other traffic going through a locked-down lobby/reception area.



Bellport Middle School, Performing Arts Center
Bellport, New York



Wiedersum Associates Architects

Design team: Richard W. Wiedersum, AIA, LEED AP, Principal-in-Charge; Sergio Gonzalez, AIA, LEED AP, Senior Project Designer; Anastos Engineering, Structural; McClave Engineering, MEP; Retnauer Design, Site/Landscape		
Client: South Country Central School District; Raymond Walsh, Superintendent		
Capacity: 700	**Space/student:** 13.2 sq. ft./seat (auditorium/stage)	**Area:** 28,250 sq. ft.
Total cost: $9,510,000	**Cost/square foot:** $336.63	**Completion:** April 2009
Photographer: Sergio Gonzalez		



As part of the South Country Central School District's recently approved $65 million building program, the board of education and the architect developed a performing-arts center expansion program for the middle school. It provides much-needed performance and assembly space, including a full-size auditorium with stage, along with storage space to support the district's theater and music programs. Six new standard classrooms will support educational programs at the middle school level. The auditorium will be used for educational, theater and music programs, special events and community use. The additional classrooms accommodate enhanced learning programs required by the state education department.

Because the existing middle school was a two-story 1970s spread-out design, the architect and the administration concluded that the best location for the new addition would be adjacent to the existing gymnasium on the northwest side of the existing facility.

The design solution involved two corridors running along the existing gymnasium exterior walls, connecting the addition to the existing school and providing excellent circulation. The location of this major addition enables the new structure to act independently, while providing the required parking for major school productions, district and community events.

The board of education and community wanted the performing-arts center to not only provide the required programmatic space they desired, but also offer a modern esthetic. The district also expressed an interest in incorporating green building materials wherever possible.

The design creates a glass and metal panel entrance, featuring a flying metal canopy. The remaining exterior facade combined glass and brick work that tie the addition into the existing older school building. The bridge that connects the new wing to the older structure is a combination of glass and metal panel.

The performing-arts center includes an auditorium, classrooms and connecting corridors composed of about 28,250 square feet of added space. The auditorium area alone provides 16,860 square feet of interior space and features wood paneling walls with built-in architectural side lights, along with a state-of-the-art stage lighting and sound system. The addition features an open and airy entrance and lobby with public restroom directly off the lobby; a 700-seat auditorium with a dual-level lighting and control room that incorporates the latest technologies; and a large open stage area of about 2,550 square feet. A side corridor provides direct access to storage rooms for costumes, music and stage equipment, along with a green room attached to the stage area. The auditorium also provides a separate handicapped stagelift area, along with wheelchair seating areas at various locations.

The classroom portion of the expansion is a two-story addition with three classrooms on each level. This wing is connected to the existing school by a second-floor











enclosed walkway that bridges the opening between the new first-floor corridor and the existing building. The purpose of the bridging was to provide the students access to an interior courtyard on the main level, and directed, protected access into the existing middle school from the addition.

Many of the building materials in the addition were used with green design in mind, including the use of recycled materials. In June 2009, the district approved a program that will create a new planetarium and a marine biology program at the middle school, along with the installation of solar panels to produce electricity for the building. The districtwide solar installation program will be the largest New York public school solar program, providing about 800 KW of electricity for the district's facilities.

HIGH SCHOOLS

CITATIONS

LaBella Associates, PC
Gates Chili High School
Rochester, New York .... p. 71

"Nice connectivity of spaces. Learning opportunities are brought out of classrooms into circulation areas. The library is warm and inviting."

—2009 jury



Perkins+Will
Woodward Academy, Math and Science Building
College Park, Georgia .... p. 72

"The building is well-situated on an existing campus site. The learning areas are transparent to both interior and exterior—the exterior facade reflects the interior use."

—2009 jury



VCBO Architecture
Park City High School
Park City, Utah .... p. 73

"The unique design embraces regional history. The design solution is rich contextually and has provided a unique learning environment that speaks to the notion of collaboration and sustainability."

—2009 jury



Visit SchoolDesigns.com.

OUTSTANDING HIGH SCHOOLS

OUTSTANDING HIGH SCHOOLS



p. 92



p. 99

Gates Chili High School
Rochester, New York



LaBella Associates, PC

Design team: Robert Healy, AIA, Principal-in-Charge; Frank Chiarella, AIA, Project Manager; Michael Short, AIA, LEED AP, Project Designer; Bill Merkovsky, Project Designer; Michael Skill, Architectural Technician	
Client: Gates Chili Central School District; John Brondon, Assistant Superintendent of District Operations	
Capacity: 1,700	**Area:** 179,912 sq. ft.
Total cost: $47 million	**Cost/square foot:** $261.24
Completion: September 2008	**Photographer:** Gene Avallone



Gates Chili sought to create a 21st-century learning environment that prepares students to compete in the global marketplace. The resulting new and renovated spaces enhance and expand the school's curriculum while eliminating the dullness of traditional institutions. Skylights and large windows let light pour in. Terrazzo floors, dark wood finishes and soft color schemes make this an environment that respects students' transition into adulthood.

The science atrium is home to an aquatics lab and botanical planters used in experiments and lessons. The aquatics lab's tanks house tropical fish, local Great Lakes fish and reptiles. Students can monitor the tanks from within classrooms.

The library/media center strives to inspire a love of reading with an up-to-date collection of 19,500 books. Soft seating areas make this a leisure center to inspire lifelong learning. Learning opportunities are everywhere, such as at the juice bar managed and operated by students in the business program.

The Spartan Field House is home to a gymnasium, indoor track, natatorium and fitness center that promote the physical wellness of all students.

"Nice connectivity of spaces. Learning opportunities are brought out of classrooms into circulation areas. The library is warm and inviting."

—2009 jury





Woodward Academy, Math and Science Building
College Park, Georgia






Perkins+Will

Design team: Barbara Crum, AIA, LEED AP, Managing Principal; Marco Nicotera, LEED AP, Design Architect; Susanne Blam, LEED AP; Liz Ann Cordill, LEED AP; Katie Pedersen, LEED AP, NCARB		
Client: Woodward Academy; Barbara Egan, Vice President of Finance and Administration		
Capacity: 1,000	**Area:** 43,000 sq. ft.	**Total cost:** $11.2 million
Cost/square foot: $260	**Completion:** July 2008	**Photographer:** Jonathan Hillyer Photography, Inc.

"The building is well-situated on an existing campus site. The learning areas are transparent to both interior and exterior—the exterior facade reflects the interior use."

—2009 jury

The new science and math building for Woodward Academy's Upper School campus sits at the end of a redeveloped quadrangle linking the science building with the other Upper School classroom building and a renovated, expanded student activities athletic center.

The curved facade along the north side of the building defines a pathway through the Upper School quadrangle from the school's front door and administrative offices to the Lower School at the far end of Woodward's College Park property.

Rooms in the existing science building were remodeled and expanded into lecture lab classrooms. Math department classrooms and a large shared lecture room for campuswide use are included in the new facility.

This is a LEED gold-certified building. The classrooms face north and south to minimize heat gain. All the instructional spaces have natural light. Bioswales capture the rain runoff and clean the water before returning it to the local Flint River basin.

Recycled and locally harvested, produced and transported materials, such as steel, concrete and brick, are the dominant building materials.

Park City High School
Park City, Utah









The new Park City High School is a combination of renovation, addition and new construction. The school is designed to meet the growing needs of the district, and to replace an aging, inefficient, outdated facility built in the early 1970s. The outcome of the extensive planning process was a design centered on an improved level of flexibility, energy efficiency, and current and future pedagogical shifts that will ensure the building functions beautifully for the next 70 years.

New classroom areas, or academic houses, were designed to encourage a fully integrated curriculum, and to create a collaborative learning and teaching environment. These clusters of spaces provide the opportunity to separate students by grade, specialty, curriculum or any other division that is desired to meet the school's evolving curricular needs.

Park City High School is the first comprehensive high school in Utah to be registered for LEED certification. In designing the building to meet LEED silver certification, the district incorporated many energy-saving systems and sustainable materials.

VCBO Architecture

Design team:
Steve Crane, FAIA, REFP, Principal-in-Charge; Vern Latham, AIA, Project Manager; Reinhardt Bsumek, Structural Engineer; Wade Bennion, Mechanical Engineer; Jerry Burnside, Electrical Engineer

Client:
Park City School District; Ray Timothy, District Superintendent

Capacity:	Space/student:	Area:	Total cost:
1,500	187 sq. ft.	260,000 sq. ft.	$28 million
Cost/square foot:	**Completion:**	**Photographers:**	
$115 (new); $40 (remodel)	August 2008	Dana Sohm/Sohm Photografx; VCBO	

"The unique design embraces regional history. The design solution is rich contextually and has provided a unique learning environment that speaks to the notion of collaboration and sustainability."

—2009 jury

Dougherty Valley High School
San Ramon, California



Akol & Yoshii, Inc. Architects

Design team:
Tipping-Mar + Associates, Structural Engineer; Mechanical Design Studio, Inc., Mechanical Engineer; WHM, Inc., Electrical Engineer; Aquatic Design Group, Pool Architect; Charles M. Salter Associates Inc., Audiovisual/Acoustical; John Nicol & Associates, Inc., Landscape Architect; Sunsaura, Theatrical; Carlson Barbee Gibson, Inc., Civil Engineer; Roebbelen, Construction Manager

Client:
San Ramon Valley Unified School District; Margaret Brown, Assistant Superintendent, Facilities Development

Capacity: 2,400	**Space/student:** 145 sq. ft.
Area: 349,000 sq. ft.	**Total cost:** $120,427,785 (excluding sitework)

Cost/square foot:
$345 (buildings and appurtenant facilities, excluding sitework)

Completion:
August 2007

Photographer:
Costea Photo









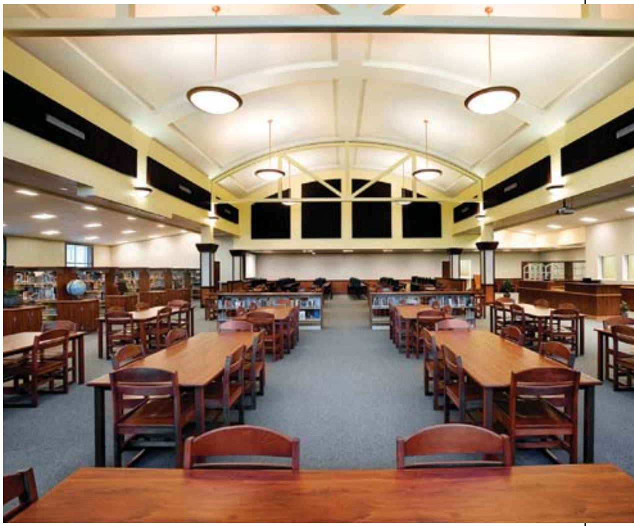
Dougherty Valley High School spreads over 54 acres, occupies 349,000 square feet, and is designed carefully to support the San Ramon district's educational philosophy and standards. It offers 80 high-tech classrooms; a performing-arts center with a 600-seat auditorium; and state-of-the-art athletic facilities, including a gymnasium, softball fields, tennis courts and an Olympic-size swimming pool. It also has a commons building with a library and cafeteria, all-weather field, and 2,800-seat outdoor stadium.

The school was designed to fit with and enhance the overall feel of the surrounding residential community. With the community's rapid growth, the school had to be built quickly or the district's existing facilities would have been strained beyond capacity. Construction was completed in just 16 months—five months less than scheduled originally—and within budget.

Despite the accelerated pace, quality never was sacrificed. Dougherty Valley incorporates the most advanced techniques and technology available in school construction today. The campus is as functional as it is beautiful. The design, color choices and materials create an inviting atmosphere for students and staff while maximizing safety with minimal supervi-









sion. Outside access is restricted to a controlled entry gate at the front of the school.

Students had significant say in the school's design. Their suggestions about safety, wider hallways and lockers for today's backpacks, and shorter distances between buildings, all were incorporated. The campus is organized so that all student buildings except the athletic facilities are situated around the main quad, which strengthens the communal feel of the school.

The campus is equipped to support a wide variety of extracurricular activities. From the library to the athletic facilities to the classrooms, students have the most advanced technology available.

City of Hialeah Educational Academy High School

Hialeah, Florida







CIVICA, LLC - Architecture and Urban Design

Design team: Rolando Llanes, RA, Ivan Fajardo, Julio Guillen, Alejandro Diaz, Tomasz Modzelewski, Carlos Perez, Jose Valderrama, Rudy Castillo	
Client: City of Hialeah; Carlos Alvarez, Principal	
Capacity: 230	
Area: 22,000 sq. ft.	**Total cost:** $3 million
Cost/square foot: $136.36	**Completion:** August 2008
Photographer: Gaston de Cardenas	

The City of Hialeah Educational Academy is a charter high school situated on the northwest corner of Slade Park in the city of Hialeah, Fla. The school is designed for 230 students in the initial phase of construction, and ultimately will accommodate more than 600 student stations upon completion of subsequent phases. The school has eight regular classrooms, a science lab, multipurpose space, kitchen and administrative areas.

The school is on the grounds of a public park, adjacent to the city's fire college, police substation and e-library. The school's educational focus on first responders and criminal justice makes its proximity to those institutions a valuable component of the overall academic experience.

The two-story building is in a predominantly single- and multi-family residential neighborhood. The architectural character of the building is consistent in scale and aesthetic with its surroundings while preserving the characteristics of a civic institution.

A two-story entry portico addresses the site's main corner and provides the first of a series of spatial sequences through the ground floor of the building. These spaces ultimately lead to the multi-use space/cafeteria, which opens onto an outdoor paved courtyard that provides additional lunch areas. The courtyard also serves as the school's social center.





Mater Academy East Charter High School
Miami, Florida



CIVICA, LLC - Architecture and Urban Design

Design team:
Rolando Llanes, RA; Julio Guillen, Ivan Fajardo, Alejandro Diaz, Tomasz Modzelewski, Carlos Perez, Jose Valderrama, Rudy Castillo

Client:
990 Building, LLC; Alejandro Tamargo, Principal

Capacity:
550

Area:
34,000 sq. ft.

Total cost:
$4.1 million

Cost/square foot:
$120.58

Completion:
February 2008

Photographer:
Gaston De Cardenas



The Mater Academy East Charter High School is a 34,000-square-foot facility in the Little Havana neighborhood of Miami. The school was completed in February 2008, and houses 500 middle and high school students. The school is situated in a mixed-use neighborhood a few miles west of downtown Miami and anchors a corner of one of the city's east-west arteries.

The existing three-story office building, built in the mid-1950s, was renovated to include 19 classrooms, a media lab, administrative offices, food-prep area, cafeteria and a covered outdoor multi-use courtyard. In addition to the renovation of the existing building, a three-story, eight-classroom addition was added that includes a prominent and iconic stair tower.

The architectural solution to the building's north facade preserves and enhances the existing pattern of horizontal windows. The classroom addition on the south side of the building is clad in metal siding as a contrast to the otherwise conventional block and stucco exterior. The corner stair tower acts as the transition between the metal-clad addition and the masonry building.







Hewitt-Trussville High School

Trussville, Alabama





Davis Architects, Inc.

Design team: Neil E. Davis, Project Designer; Geoff Clever, Principal-in-Charge; Courtney Pittman, Project Manager; Amanda Tse, Project Coordinator; Stephanie Pope, Interior Designer	
Client: Trussville City Schools; Suzanne Freeman, Superintendent	
Area: 285,000 sq. ft.	**Total cost:** $68 million
Cost/square foot: $238.60	**Completion:** June 2008
Photographer: Rion Rizzo/Creative Sources Photography	

For its new high school, the city of Trussville wanted to reflect the best of its community while respecting the ecology of the site along the banks of the Cahaba River, one of America's last and longest free-flowing rivers. The Trussville school board also wanted to embrace the latest technologies and most effective teaching techniques while incorporating such flexibility in the design that newer and more effective teaching tools may be added seamlessly.

Natural stone found in structures throughout the community was used to stunning effect by combining it with an inviting classical portico. The building is shaped around the river to respect and celebrate the environment, while also teaching the importance of preserving it. A soaring, light-filled cafeteria with tall windows provides inspiring views of the river. Playing fields on the other side—connected to the campus by a pedestrian bridge—take advantage of existing grasslands. Even the woodland parking area preserves special species of trees tagged by the architects for survival.

From the beginning, the school board committed to build for the future, so they decided to invest on the front end in design features to ensure energy efficiency and reduce maintenance costs over the long term, such as a state-of-the-art HVAC system to monitor and control energy usage. High-quality metal roofing is part of a rainwater-collection system that channels water into a pond to supply the school's irrigation system. Natural light throughout reduces the need for—and the cost of—artificial lighting.



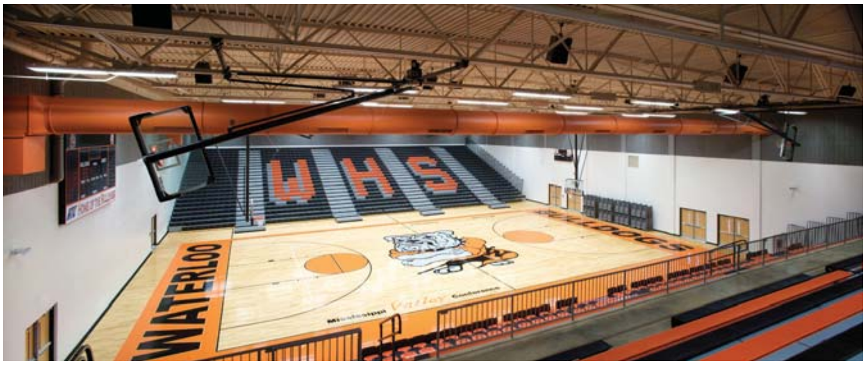


Waterloo High School
Waterloo, Illinois











Design Architects, Inc.

Design team:	Hurst-Rosche Engineers, Civil/ Structural/ MEPF
Client:	Waterloo CUSD #5; James Helton, Superintendent
Capacity:	1,400
Space/student:	174 sq. ft.
Area:	243,683 sq. ft.
Total cost:	$38 million
Cost/square foot:	$155.94
Completion:	July 2009
Photographer:	Mark Karpinski

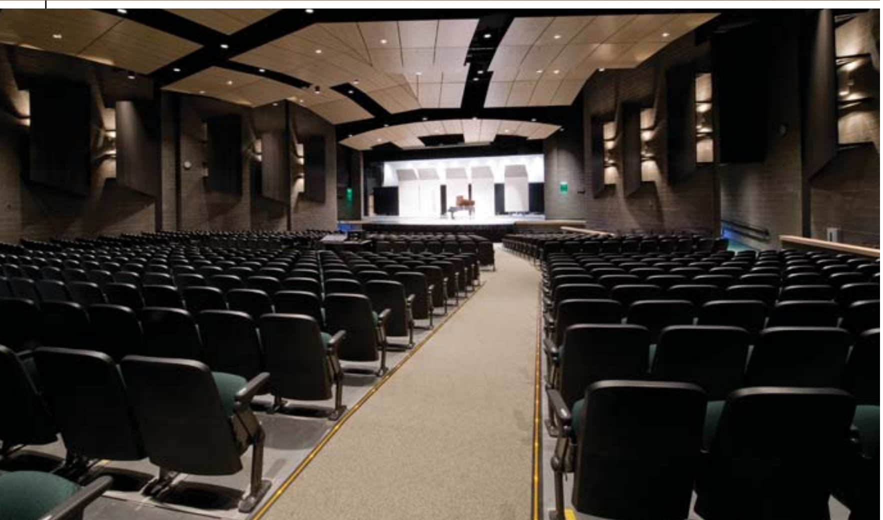
The school is designed to handle 1,400 students initially, but core spaces (food service, gymnasiums, library and building systems) are designed for 1,800 students. The school is designed to accept 20 more classrooms. The layout is such that in an emergency, complete visual oversight by administrators of all corridors is only 15 to 20 feet away.

The school has a culinary-arts lab where students learn to prepare and cook with restaurant-grade equipment, a home for the "Project Lead the Way" pre-engineering program. To support a strong agriculture program, a central courtyard was included that organizes the building and enhances curriculum. Landscaped areas enable the agriculture students to "practice" their horticulture instruction. An elevated tank for water plants also forms a waterfall to aerate the pond, which has a bio-filter and serves as a habitat for their fisheries program. Art has an outdoor drawing deck cantilevered over the pond; special education has outdoor areas for physical therapy and sensory activities.

The courtyard is an outdoor eating plaza for lunch on nice weather days, and the theater has a patio for receptions and intermissions.

King Philip Regional High School
Wrentham, Massachusetts





Dore & Whittier Architects, Inc.

Design team: Donald M. Walter, Principal-in-Charge/Project Manager; David Lopatich, Lead Designer; Chris Conway, Construction Administrator; Mark Marshall, Job Captain	
Client: King Philip Regional School District; Richard J. Robbat, Superintendent	
Capacity: 1,350	**Space/student:** 170 sq. ft.
Area: 100,000 sq. ft. (renovation); 130,000 sq. ft. (addition)	
Total cost: $44,646,000	**Cost/square foot:** $194.11
Completion: August 2007	
Photographer: Gregg Shupe/Shupe Studios	

The architect conducted a comprehensive feasibility study for the King Philip Regional School District to determine the most educationally sound, cost-effective solution to student population growth and outdated facilities.

Built in 1956, the high school no longer met current or projected educational expectations. Multiple design options were explored, and an addition and renovation solution was selected to best meet the district's educational needs and financial means.

The phased project commenced with a two-story classroom addition, conversion of a vocational-technical wing into a technology/media center, and modernization of the fieldhouse and athletic support space. Once that was completed, students moved into their new academic space. Phase II proceeded with construction of an 850-seat performance auditorium, cafeteria common, fine-arts center and main entrance. The existing auditorium was converted into a band/music suite.

Keeping the school operational with minimal disruptions during construction, King Philip Regional High School became a modern school facility at a reasonable cost.







Fox Lane High School
Bedford, New York



The Geddis Partnership, A Professional Corporation
Design team: Barbara L. Geddis, FAIA; John S. Brice, AIA; Winston Collins, AIA
Client: Bedford Central School District; Mark Betz, Assistant Superintendent
Capacity: 1,500
Area: 81,200 sq. ft. (new); 145,000 sq. ft. (renovated)
Total cost: $42.8 million
Cost/square foot: $300 (new)
Completion: September 2008



Fox Lane High School was created in 1956 as a multi-town, innovative enterprise on a 50-acre rocky hilltop. Over five decades, its many wings of combined middle and high school, science and art evolved into a 1,500-student high school where the many "wings" needed a thorough second look.

The amalgam of administrative, middle school, high school and fields offered poor vehicular access, and the space provided inadequate separation of recreation, pedestrians, buses and cars.

The high school was reconceived, re-utilizing 145,000 square feet and building 81,200 square feet around a new north-south axis with clerestory light with two entrances; a commons; reconstructed science, renovated music and art, and 35 new general-use, properly sized high school classrooms; three computer rooms; a new electronic music room; a new orchestra room; and a new technical drawing studio. Solar orientation and sun shading were fundamental to the design inside and out. Expanding a small, pre-existing commons and making it a pivot point was part of the plan.

The result is a forward-looking, coherent and striking three-story general classroom hub around a south-facing atrium linking all spaces to a one-story, sloped metal roofed north interior, along a skylighted street. With the majority of the undersized one-story concrete block classroom wings of the 1956 footprint demolished, all teaching spaces now have ample space, natural light and technology. The revised hilltop plateau has a new second front door onto the adjacent roadway.





Edmond Memorial High School, Freshman Academy
Edmond, Oklahoma



GSB, Inc.

Design team:
Ronald Smith, AIA, Principal-in-Charge; Michael Hinchey, AIA, Principal/Director of Design; Ryan Eshelman, RA, LEED AP, Associate/Design Architect; Paul Nybeck, RA, CSI, CCS, CCCA, Senior Associate/Project Architect/Specifications; Steve Tresemer, RA, Associate/Construction Administration

Client:
Edmond Public School District; Bret Towne, Associate Superintendent/District Operations

Capacity:
600

Area:
51,000 sq. ft.

Total cost:
$7.3 million

Cost/square foot:
$143.14

Completion:
July 2008

Photographer:
Joseph Mills Photography



The Freshman Academy is an independent facility on the campus of a major suburban high school. The building was designed to occupy a portion of an existing parking lot and present an attractive facade to the neighboring residential district. The exterior materials complement those of the high school itself, and the dramatic curtainwall and portico create a unique image and entry experience.

The heart of the 51,000-square-foot building is the daylighted, two-story commons area, which serves as both cafeteria and central gathering place. A broad overhang and horizontal sunshades allow ample daylight into the space, while eliminating glare and excessive solar heat gain.

With classrooms, science rooms, administrative offices and support areas, this is a fully equipped academic facility. Students cross the adjacent high school via a new covered walkway to use the library, performing arts and athletic facilities.

The project was completed for the 2008-2009 academic year, and its success has led to the creation of additional dedicated freshman student facilities at the district's other high schools.

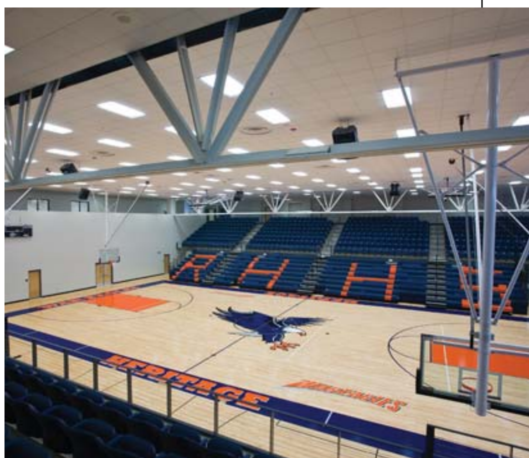




Rogers Heritage High School
Rogers, Arkansas













Hight-Jackson Associates, PA

Design team:
Gary Jackson, AIA; Cade Jacobs, Michelle McClaflin, LEED AP; Caroline Martinez; Brian Jackson, PE; Mike Spaeth

Client:
Rogers School District; Janie Darr, Superintendent

Capacity:
2,500

Area:
338,000 sq. ft.

Total cost:
$39.7 million

Cost/square foot:
$117.50

Completion:
August 2008

Photographer:
Janet Warlick/Camera Work, Inc.

This former high school, being used as a 10th-grade center, was chosen as the site for a second high school to accommodate student population growth. The architect's challenge for the expanded high school was that it be "equitable" with the city's existing high school in appearance, size and opportunities for learning.

The campus consisted of several separate buildings on different levels connected by covered walkways. Providing interior connections between retained buildings, while creating new spaces to present a unified appearance, was a daunting challenge. Maximizing natural lighting was achieved in part through use of curved, multi-story glass walls leading into terraced courtyards. "Equity" in appearance to the existing high school was achieved through use of modern, colorful construction materials surrounding existing spaces on three sides.

The new Rogers Heritage High School speaks boldly of the past and embraces the excitement of the future for the student body. In addition, the continued use of this site has preserved an important part of history for this community.

Southeast Bulloch High School
Brooklet, Georgia



James W. Buckley and Associates, Inc.

Design team:
Craig R. Buckley, AIA, President/Project Architect; Mark Taylor, Designer; Eric McDaniel, Project Manager

Client:
Bulloch County School System; Lewis Holloway, Superintendent

Capacity:
1,200

Space/student:
156.52 sq. ft.

Area:
187,827 sq. ft.

Total cost:
$18,840,630

Cost/square foot:
$100.31

Completion:
August 2007

Photographer:
Richard L. Johnson



The two-story octagonal entry tower of Southeast Bulloch High School emerges from a pastoral setting to seize attention and proudly announce its presence. The commanding facade is achieved through rhythmically spaced vertical piers across the front elevation from the gym on one side to the elongated dropoff canopy on the other and linked at the core by the predominant entrance pavilion. The modified pinwheel footprint was shoehorned on the location because of the still-present obstacle of the old high school on site.

The interior highlights brickwork that is illuminated from the exterior and clerestory lighting. At the center hub of the commons, the entry to the cafeteria features a substantial curved soffit. The cafeteria has floor-to-ceiling windows accented with brick walls and coffering. The gymnasium overflows with natural light and highlights an expansive weightroom occupying the mezzanine level overlooking the athletic floor.







Cane Bay High School
Summerville, South Carolina



Jumper, Carter, Sease Architects PA

Design team:
Todd Sease, Principal-in-Charge; Joel Carter, Principal; Keith Myhand, Project Architect

Client:
Berkeley County School District; Chester Floyd, Superintendent

Capacity: 2,000

Space/student: 192 sq. ft.

Area: 384,000 sq. ft.

Total cost: $51 million (not including $10 million for sitework)

Cost/square foot: $133

Completion: August 2008

Photographer: M.B. Kahn Construction Co., Inc.

Cane Bay High School is part of a growing development that includes a middle school, an elementary school and multiple residential subdivision. The high school's design strives to encourage academic excellence through architecture. The 74-acre site encourages community interaction by providing an extensive sports complex.

In order to encourage maximum connectivity throughout the student body, an "X" plan was used. Specialized wings meet at a central hub. The student commons, cafeteria, media center, auditorium, administration, and guidance are all situated conveniently at the center of the plan. The school's unique amenities include a career and technology wing, which enables students to develop real-world skills. A multimedia classroom, designed as a lecture hall, also can be used for distance-learning classes.

The sports complex is designed for tournament play, and consists of a football/track and field stadium, baseball/softball complex, tennis complex, soccer field and band practice fields. These amenities are adjacent to the high school's athletic wing, enabling a seamless transition from academic to community-based growth.









Lexington High School, Auditorium and Competition Gymnasium Addition · *Lexington, South Carolina*







Jumper, Carter, Sease Architects PA with Calloway, Johnson, Moore & West, PA

Design team:
Joel Carter, Principal-in-Charge; Ben Compton, Principal-in-Charge; Todd Sease, Project Architect; Marshal Gardner, Project Architect

Client:
Lexington School District One; Karen Woodward, Superintendent

Capacity: 2,500 (existing and addition)	**Space/student:** 179 sq. ft. (existing and addition)	**Area:** 64,970 sq. ft. (new); 446,680 sq. ft. (new/ existing)	**Total cost:** $20,859,000
Cost/square foot: $321	**Completion:** August 2008	**Photographer:** Brian Dressler Photography	



Lexington High School's need for a new auditorium and competition gymnasium presented designers with the opportunity to seamlessly connect the art and music wing to the existing detached gymnasium. Modern materials such as glass and metal were combined with traditional materials such as brick and precast concrete to create an intriguing focal point that fits into the existing architecture. In the evening, this facility glows and helps to make the spaces more inviting, thus promoting community interaction.

To assist with crowd control when both spaces are being utilized, the new auditorium and competition gymnasium have separate lobbies. However, the two spaces share concession and restroom facilities in order to streamline services.

The gymnasium lobby is situated a story above the playing court; this enables visitors to have a unique view of all sporting events. In the auditorium, visitors are greeted with a beautiful atmosphere defined by strategically placed wood paneling.

Overall, the new auditorium and competition gymnasium work in tandem to create two distinct spaces that meld beautifully into the surrounding architecture and decor.



Southeastern CUSD #337, New High School

Augusta, Illinois





Klingner & Associates, PC

Design team:
Michael Carter, Project Architect;
Robert Venvertloh, Mechanical Engineer;
Joe Knochel, Electrical Engineer;
Alan Lukens, Structural Engineer;
Ed Wiskirchen, Structural Designer;
Debbie Naught, Interior Designer

Client:
Southeastern CUSD #337;
Don Daily, Interim Superintendent

Area:
36,801 sq. ft.

Total cost:
$5,842,827

Cost/square foot:
$159

Completion:
May 2008

Photographer:
Tabitha Thompson

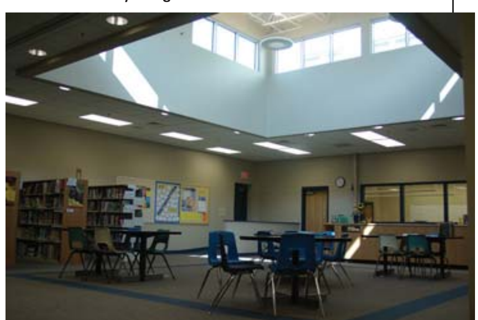
Southeastern High School suffered a devastating fire that destroyed 24,000 square feet of its 43,000-square-foot campus. With the combination of an insurance settlement and state emergency grant, the rural school district was in a position to take a fresh look at its academic mission.

A primary goal of bringing a high level of educational technologies into classrooms was accomplished through extensive raceways of data and communication cabling, Internet routers and interactive markerboards. Another goal was to provide a flexible plan, because a consolidation with another school district is a possibility in the next 10 years. This was achieved with a two-story classroom addition that used solid masonry bearing walls at exterior and corridor walls, but with light-gauge metal walls dividing the classrooms.

The radiused curtainwall, fanned eave and silver wing-wall at the building entrance create an architectural language that reflects the educational technologies inside. Although the facility is a small rural school, the architecture reflects a desire to be as technologically connected as any large suburban school.







International High School
Paterson, New Jersey



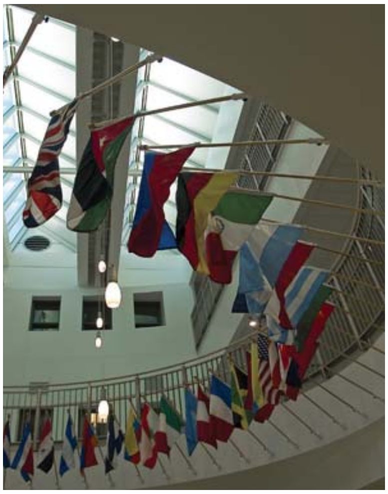




L+C Design Consultants PA

Associated firms: Ysrael A. Seinuk PC, Consulting Structural Engineer; Yee Engineers, MEP, FP; Intertech Associates, Technology

Design team: Grace Lynch, AIA, PP, CID, LEED AP, Principal Architect; John Curry, PE, Principal Engineer; Prince Yu, RA; Rebecca Uss, NCARB, LEED AP; Kevin Ballantyne, RA, LEED AP, CSI/CSS			
Client: New Jersey Schools Development Authority (NJSDA) and Paterson Public Schools; Donnie W. Evans, State District Superintendent			
Capacity: 612	**Space/student:** 118 sq. ft.	**Area:** 115,000 sq. ft.	**Total cost:** $37 million
Cost/square foot: $321	**Completion:** September 2008	**Photographers:** Brian G. Lewandowski; Grace Lynch	



The New International High School in Paterson, N.J., embodies the efforts of a dedicated steering committee of educators, parents, students and the architect. Careful planning generated programming and design goals to celebrate diversity and promote global awareness in an atmosphere of scholastic excellence.

The 115,000-square-foot facility, a dynamic environment for 600 students, is massed in distinct architectural blocks. At the center, instructional spaces ring a three-story atrium where circulation, via a monumental stair, overlooks Paterson's historic downtown. The sawtooth roof monitors, reminiscent of local industrial architecture, draw light through the core.

The auditorium, at the highest elevation, houses performances, student roundtable activities and conflict resolution modeled on United Nations practices. The gymnasium is adjacent to small athletic fields at the lower end of the site. In the central block, the media center, with expansive windows, and cafeteria flank the atrium. Such public spaces, on the first two floors, accommodate secure, shared community use. Upper floors house classrooms, labs and faculty workrooms.

Site constraints and proximity to traffic required a unique design solution. The vertical axis of the atrium provides an internal focus to encourage student interchange. Materials and finishes evoke a collegiate atmosphere of civic responsibility and stewardship.



Springfield High School
Springfield, Ohio



Lesko Associates, Inc.

Design team: Robert W. Blatchford Jr., AIA, REFP, President; Seyed Moh Ayat, AIA, LEED AP, Edward G. Lesko, AIA, Principals-in-Charge of Design	
Client: Springfield City School District; E. Jean Harper, Superintendent	
Capacity: 2,447	**Space/student:** 156.06 sq. ft.
Area: 381,878 sq. ft.	**Total cost:** $63 million
Cost/square foot: $164.97	**Completion:** September 2008
Photographer: Hanson Photographic	

The new Springfield High School is designed for 2,447 students in grades 9 to 12. The school is divided into four small learning centers that house 610 students. Each learning center houses a self-sufficient program within the larger building, and contains its own administration and guidance office suite.

The main feature of the new high school is the curved three-level classroom wing that houses the learning centers. The main level houses all common and elective course classrooms. Each small school has extended learning areas that are flexible, multipurpose spaces providing opportunities for contemplation, interaction and small groups.

At the center of the building, two large courtyards provide outdoor learning space and natural light to interior classrooms. Daylighting illuminates the classrooms and other areas where students learn, as well as corridors and core spaces.

Community-use areas are situated at the front of the building near to parking for easy accessibility. The self-contained athletic department has a separate entrance, enabling evening and weekend use while maintaining security in the rest of the building.







Columbia Adventist Academy, Replacement Classroom Building
Battle Ground, Washington





Manley Architects

Design team:
Harper, Houf, Peterson, Righellis, Civil; Kramer, Gehlen and Associates, Structural; Interface Engineering, Mechanical; Athay and Associates, Inc., Electrical; Matela Associates, Landscaping

Client:
Oregon Conference of Seventh-Day Adventists; Matthew Butte, Principal

Capacity:
200

Space/student:
126 sq. ft.

Area:
25,260 sq. ft.

Total cost:
$4,732,199

Cost/square foot:
$187

Completion:
July 2009

Photographer:
Roch Manley

This private high school classroom building provides an energy-efficient replacement for aging facilities on a campus occupied continuously for more than 100 years. Wood-framed with brick veneer, the building features exposed-wood roof decking and wood beams, extensive natural lighting, and a natural ventilation system integrated with high-efficiency hydronic heating. Classrooms are equipped with networked digital projectors and interactive whiteboard systems.

At 25,000 square feet, the building provides 10 teaching stations including general and science classrooms and lab, a co-op area library, forum flex space and campus administrative offices.

The design reflects its rural surroundings and recalls various buildings that have occupied the site since 1903. The Forum space, at the heart of the building and crossroads of campus, is a daylighted two-story multipurpose space that will be used as lobby, chapel, gathering space and gallery. The Forum focuses attention north, aligning on the school's most familiar symbol: the iconic, historic water tower.

The new building weaves gracefully into the existing campus fabric, holding great promise for serving the next 100 years of Adventist education.





Chicago International Charter School: Ralph Ellison High School

Chicago, Illinois



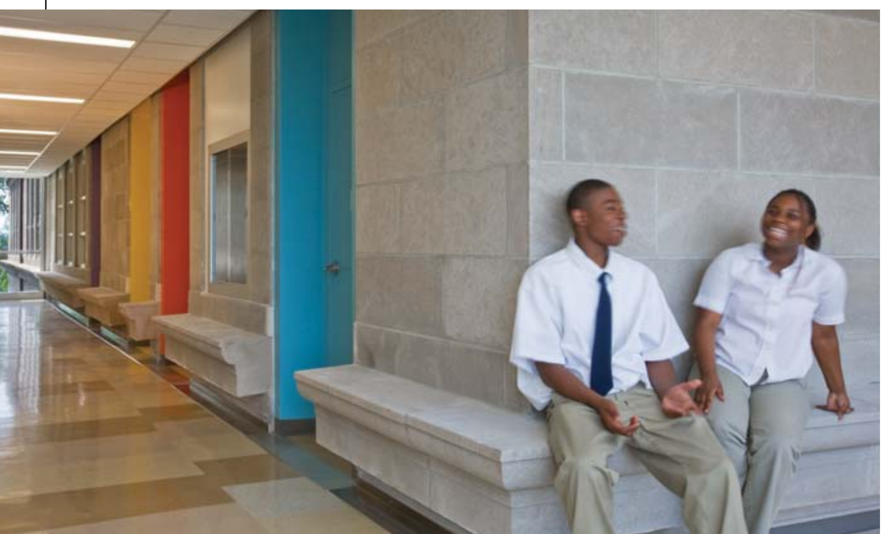
OWP/P

Design team:
Rick Dewar, Project Director; Trung Le, Design Principal; Teri Wright, Project Manager; Ripal Patel, Project Architect; Troy Kerr, Architect; Keith Hammelman, Lead MEP/FP Engineer; Angeline Schaefer, Lead Electrical Engineer; David Bibbs, Lead Structural Engineer

Client:
Chicago Public School District 299/
Chicago International Charter School/Civitas Schools; Beth Purvis, Executive Director

Capacity: 600	**Space/student:** 107.9 sq. ft.
Area: 64,735 sq. ft.	**Total cost:** $11,111,743
Cost/square foot: $172	**Completion:** June 2008

Photographer:
James Steinkamp



The design for this school on Chicago's South Side tells the story of an abandoned, asbestos-ridden structure that became a thriving academic community and source of pride for students and nearby residents. Feeling that it was important to reflect the students' and community's rich African-American culture, the district named the school for the reputable African-American author Ralph Ellison, whose novels and essays were transformative in the realms of literature, history and the African-American identity.

Ninety-eight percent of the 450 students at the school are African-American. In seeking to highlight the students' heritage while emphasizing Ellison's legacy, the design team sandblasted a quote from *Invisible Man* onto the curtainwall at the front of the building. The quote is large enough to engage the community to become a part of the dialogue within, yet subtle enough to instill a sense of wonderment and curiosity in the students. The quote reads: "I love light. Perhaps you'll think it strange that an invisible man should need light, desire light, love light. But maybe it is exactly because I am invisible. Light confirms my reality; gives birth to my form."





Clear Creek High School Rebuild

League City, Texas









PBK, Inc.	
Client: Clear Creek Independent School District; Greg Smith, Superintendent	
Capacity: 2,500	**Space/student:** 93.60 sq. ft.
Area: 234,000 sq. ft.	
Total cost: $34,398,575	
Cost/square foot: $147	
Completion: July 2007	

Clear Creek High School (CCHS) needed an "extreme makeover" that preserved its historical elements. Built in 1965, CCHS was not intended to hold more than 3,000 students and fell dramatically behind current educational standards over the past 40 years. Several design challenges were incurred during the project. Students attended class while 70 percent of the campus was demolished and rebuilt. A central plant was built to operate existing and future facilities. The new plan had to accommodate the existing cafeteria and library.

Other challenges included limited site access, no contractor staging area, working around the T-building campus and expanding the parking lot. The design combines new and existing facilities into 234,000 square feet of additions and renovations. All project brick matches existing conditions, and the main entrance has been re-situated to a more prominent side of the campus. Interior corridors were widened and reconfigured into linear pathways. The campus' "sacred" courtyards were salvaged. All learning spaces were updated with improved natural lighting.

This revitalized high school now serves as a catalyst for student achievement for years to come.

Arabia Mountain High School
Lithonia, Georgia





Perkins+Will	
Design team: Barbara Crum, AIA, LEED AP, Managing Principal; Manuel Cadrecha, AIA, LEED AP, Design Principal; Shawn Hamlin, AIA, LEED AP, Project Manager	
Client: DeKalb County School System; Patricia Pope, Associate Superintendent	
Capacity: 1,600	**Space/student:** 150 sq. ft.
Area: 240,000 sq. ft.	**Total cost:** $40.1 million
Cost/square foot: $167	**Completion:** August 2009
Photographer: Jonathan Hillyer Photography, Inc.	

Arabia Mountain High School, situated in Arabia Mountain National Heritage Area in Lithonia, Ga., is on track to become Georgia's first LEED-certified public high school.

The classrooms face north and south, featuring large expanses of glass that let in significant amounts of natural light and maximize energy efficiency. Bioswales along the building capture rain water from the roof drains and clean water runoff before returning it to the natural stream system. Brick and metal panels clad the facade, providing a fresh look for this sustainable high school. High-performance glass and overhangs minimize energy consumption.

The building is divided into three smaller learning communities (SLC) designed with flexibility to accommodate a variety of teaching methodologies. In an effort to create a curriculum that incorporates the school's sustainability features, the faculty worked with the State Education and Environment Roundtable in developing an EIC Model Program. This focuses on using local, natural and community surroundings as a context for interconnecting all educational practices into a comprehensive school-improvement strategy, as well as establishing a context for standards-based instruction.







Green Tech High Charter School

Albany, New York





Rhinebeck Architecture & Planning PC

Associated firm:
The DiSalvo Ericson Group

Design team:
J. Louis Turpin, AIA, LEED AP;
Phillip Zemke, AIA, LEED AP

Client:
The Brighter Choice Foundation;
Christian Bender, Executive Director

Capacity:
350

Space/student:
125 sq. ft.

Area:
44,000 sq. ft.

Total cost:
$8 million

Cost/square foot:
$182

Completion:
May 2008

Green Tech High Charter School is an all-male school that provides a high-quality, college-preparatory education in a safe, small-school setting. The school offers an extended school day, a longer school year, extensive literacy instruction, and programs that emphasize environmental awareness and technological proficiency.

The architect designed the building as a healthful and productive place to learn and teach by providing a safe and secure environment with superior indoor air quality, thermal comfort, excellent acoustics, extensive daylighting and views. Building orientation enabled the use of oversized windows with sunscreens for daylighting and light control. Systems and materials were selected that were renewable, locally available and durable so that the facility can be maintained and operated easily.

The origination of the building, high-performance lighting and mechanical systems, and the responsible use of water and energy make Green Tech High Charter School an enjoyable and sustainable place for learning.









Plainfield High School

Plainfield, Indiana



Schmidt Associates

Design team:
Wayne S. Schmidt, FAIA, Principal-in-Charge; Kevin D. Shelley, AIA, LEED AP, Project Manager; Steven K. Alspaugh, AIA, LEED AP, Design Architect; Lisa C. Gomperts, AIA, LEED AP, Project Architect; Brandon M. Fox, Architectural Graduate; Corrie A. Meyer, AICP, RLA, LEED AP, Site Design; James A. Darnell, RCDD/OSP/NTS/CSC, Technology Designer

Client:
Plainfield Community School Corporation; Scott Olinger, Superintendent; Jud Wolfe, Assistant Superintendent

Capacity:
1,600 (2,200 future)

Space/student:
308 sq. ft.

Area:
493,324 sq. ft.

Total cost:
$81,906,061

Cost/square foot:
$166

Completion:
June 2008

Photographers:
Schmidt Associates; Chilluffo Photography

The new Plainfield High School has been designed with an initial student capacity of 1,600 in phase one. Because a second phase most likely will be necessary, major "public" components (media center, cafeteria, auditorium, physical education and athletic areas) were designed based on 2,200—minimizing Phase II construction to a single classroom wing.

The facility separated the departmental layout of 85 instructional academic spaces from event areas (physical education, athletic, auditorium) with a centrally situated main office/counseling area. Access to the event areas was provided with high-volume pavilions for massing visibility—linking them along an "internal street."

It was important for the new Plainfield High School to be designed as a campus—enabling all school activities to take place on-site, while maximizing the remaining site area for a future kindergarten center. Safe separation of entry points and internal connectivity also were paramount. As a result, the 110-acre site—formerly a corn field—was developed using sustainable site-drainage features, landscaping, and roadways to separate and link campus components for safety, security and accessibility.



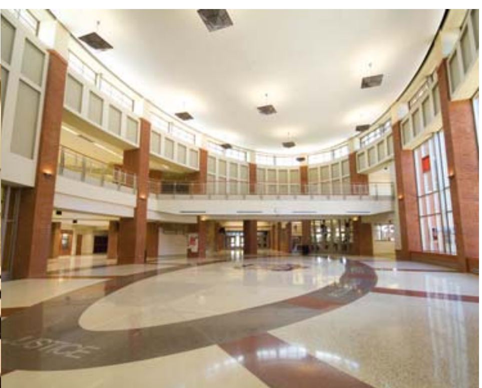





GYMNASIUM











Suncoast Polytechnical High School
Sarasota, Florida







SchenkelShultz Architecture

Design team:	Kenneth G. Dean, AIA, LEED AP; Kasey Teimouri, AIA, LEED AP; Daniel C. Laggan, AIA; Nutan Kulkarni, LEED AP; James H. Robison, AIA, LEED AP
Client:	The School Board of Sarasota County; Lori White, Superintendent
Capacity:	600
Area:	73,370 sq. ft.
Total cost:	$16.5 million
Cost/square foot:	$224.89
Completion:	August 2008
Photographer:	Chris Casler

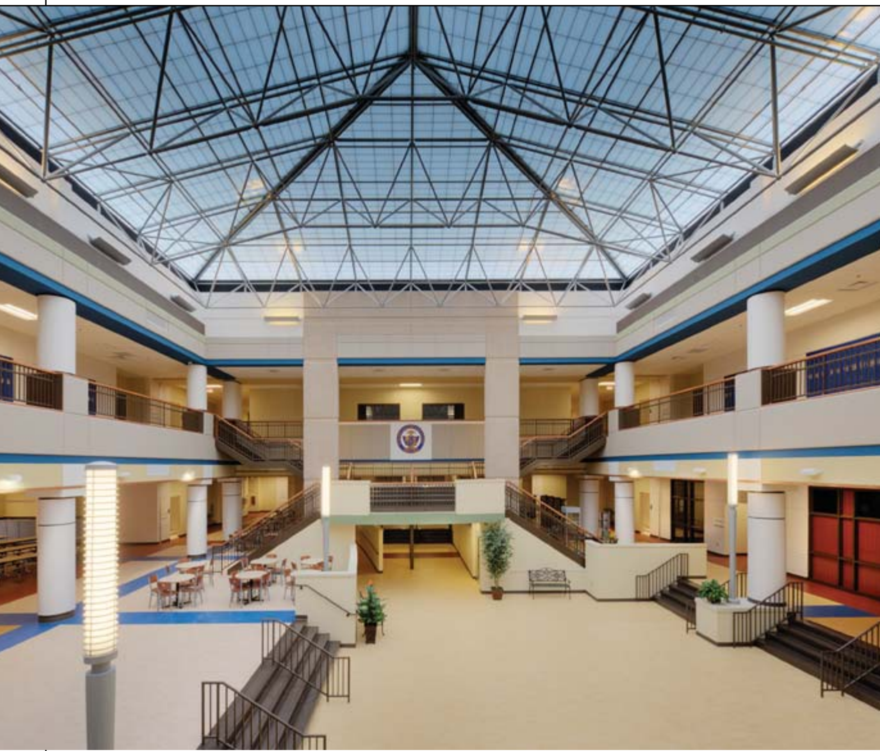
Suncoast Polytechnical High School establishes a new, iconic image for the career-education campus and the community. The design is organized using the small learning communities concept and enables a seamless integration of core curriculum subjects and career technical education into one building. The flexible spaces accommodate group and individual learning styles and are adaptable for changes in curriculum. The building is a technology-rich environment that is both wired and wireless for students, faculty and visitors.

An important principle in the design of the high school was sustainability. The orientation of the school takes advantage of maximum natural light in all instructional and circulation spaces, which promotes a better learning environment for students. In addition, the project included energy-efficient mechanical systems and lighting systems with daylight sensors, eco-friendly materials and the preservation of mature trees on site.





Eastern Guilford High School
Gibsonville, North Carolina



SFL+A Architects

Design team:
Davis-Martin-Powell Associates, Inc., Civil; CLH Design, PA, Landscape Planning; Fleming & Associates, Structural; Optima Engineering, PA, Mechanical, Electrical, Telecomm and Fire Protection; Foodesign Associates, Inc., Food Service Design

Client:
Guilford County Schools; Travis L. Reeves, Principal

Capacity:
1,200

Space/student:
228 sq. ft.

Area:
273,195 sq. ft.

Total cost:
$47,036,458

Cost/square foot:
$172.17

Completion:
March 2009

Photographer:
Clear Sky Images



The Eastern Guilford High School project included demolition of a 1950s building that had been destroyed by fire, and construction of a temporary "mobile village" where students could attend class while a new facility was being constructed.

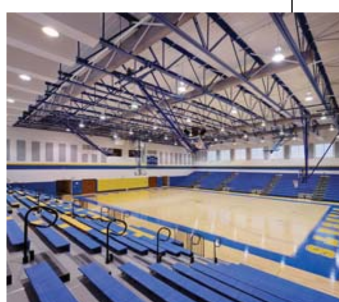
The new 1,200-student/1,600-core capacity building is organized around a central two-story atrium. Opening directly into the atrium are the cafeteria, auditorium, main entry lobby, gymnasium, concessions space, student store and science laboratories. Incorporated into the atrium commons are a career center, a cyber cafe and additional dining space.

Easy internal access to all areas of the facility permits all of the exterior doors to be locked with the exception of the main entrance, where control doors and a visitor check-in lobby are situated.

The architect designed and constructed the new facility in less than 670 days. Because of the rapid response, the "mobile village" was ready for students at the beginning of the next school year. Student displacement from a permanent facility was limited to a little more than two years.







Minooka Community High School, South Campus
Channahon, Illinois



STR Partners LLC

Design team:
Jan T. Taniguchi, AIA, LEED AP, Project Executive/Design Principal; Jennifer Costanzo, AIA, LEED AP, Technical Principal; Louis Ng, LEED AP, Project Manager

Client:
Minooka Community High School District 111; David Middleton, Superintendent

Capacity:
2,000

Space/student:
139.50 sq. ft.

Area:
279,000 sq. ft.

Total cost:
$48,492,000

Cost/square foot:
$173.80

Completion:
August 2008

Photographer:
Steve Hall/Hedrich-Blessing











Constructed to accommodate the rapid increase in student population and changing demographics of Minooka Community High School District 111, this new high school is the first new standalone academic building in the district since 1970.

To address the community's objectives of fiscal responsibility and an emphasis on education, the building design evolved to become a compact, no-nonsense layout emphasizing educational spaces. Phase I focuses on providing academic spaces for 2,000 students and an infrastructure for future phases.

The building's exterior was designed to present a clean, crisp appearance that would admit an abundance of natural light. Classrooms were designed with large windows. Exit and interconnecting stairs include either skylights or curtainwall glazing. The cafeteria dining space is illuminated with a glass clerestory. Both the competition gym and auxiliary gym admit diffused light through translucent clerestory panels.

Incorporated in the design are natural prairie habitats, bike paths, decorative screening of adjacent residential properties and roadway modifications for traffic safety. The new building's facilities, such as the gymnasiums and cafeteria, are made available to the community and were designed so that community access would be possible without sacrificing building security.

A.R. Johnson Health Science & Engineering Magnet School
Augusta, Georgia







Studio 3 Design Group, PC

Design team:
Richard Hinman Jr., AIA, Principal-in-Charge, Design Architect; Michelle Pieper, Interior Design; Pruett, Ford & Associates, Mechanical Design; Electrical Design Consultants, Electrical Design; Ingenium Consulting, Structural Engineer

Client:
Richmond County Board of Education; Dana Bedden, Superintendent

Capacity:
700

Area:
141,846 sq. ft.

Total cost:
$20,917,000

Cost/square foot:
$147.46

Completion:
December 2008

Photographers:
Jay Thaxton; Donald Tilton

A.R. Johnson Health Science & Engineering Magnet School, once housed in a 1950s inner-city structure, is one of the top-rated schools in Georgia. The architect was given the opportunity to provide a new, exciting facility that would enable students to excel in a high-tech environment.

The classrooms are situated around a grand atrium, which serves as the hub for the students to gather. The ARJ cafe and media center are a part of the atrium space. The classrooms vary from general studies to specialized health and engineering education.

The 1950s building was demolished, except for the gymnasium, which was renovated into a 460-seat lecture hall that serves as an area for guest speakers, lecturers, student honors and performances. This area also was designed as a community space with a separate lobby and entrance.

A 1,200-seat gymnasium was added in the last phase of construction. The gym includes a locker room, toilets and a physical-education classroom for student activities. Separate entrance lobby and concession areas provide public access for outside events.





Bridgewater-Raynham Regional High School
Bridgewater, Massachusetts











Symmes Maini & McKee Associates

Design team:
Robert A. Fournier, AIA, IIDA, Project Director/Manager; Alex Pitkin, AIA, Project Architect; Peter S. Glick, PE; Wayne Keefner, PE, LEED AP, Site Engineer; Mark J. Zarrillo, FASLA, AICP, Landscape Architect; Daniel A. Kocur, PE, CEM, LEED AP, Mechanical Engineer; Rafael Gurevich, PE, Electrical Engineer; Bonnie Helm, Elizabeth Clark, Interiors; Elinore Charlton, Specifications; Henry S. Ricciuti, AIA, Construction Administration

Client:
Bridgewater-Raynham Regional School Building Committee; Robert McIntyre, Building Committee Chairman

Capacity:
2,000

Space/student:
167.5 sq. ft.

Area:
335,000 sq. ft.

Total cost:
$54.9 million

Cost/square foot:
$163.88

Completion:
September 2007

Photographer:
Richard Mandelkorn

Bridgewater-Raynham Regional High School is planned to accommodate a population of 2,000 pupils in grades 9 to 12. As a major public facility shared by two adjoining towns, the school is both a state-of-the-art high school and an educational and recreational resource for its communities.

To facilitate community use of the building after hours and during the summer while maintaining security for the academic precincts of the building, the school is split into two closely connected wings: a community wing with easy public access to the auditorium, gymnasium, health and fitness center, and cafeteria; and a two-story academic wing accommodating classrooms, laboratories and support spaces for students.

Recreational facilities shared with the community include a multipurpose stadium with artificial turf and running track, plus fields for baseball, soccer and exterior courts for basketball and tennis.

The school is designed to Massachusetts CHPS (Collaborative for High Performance Schools) Green Schools Guidelines and is pending certification. It also is a candidate for a Massachusetts Technology Collaborative renewable energy grant.

Skyline High School
Ann Arbor, Michigan



TMP Architecture, Inc.

Associated firm: Mitchell and Mouat Architects, Inc.

Design team:
Gary Jelin, AIA, Richard Mitchell, AIA, Project Architects; Nicholas McGee, AIA; Eric Sassak, AIA, LEED AP; Barb Vukits, LEED AP; Dave Koziarz, AIA; Mark Borys, AIA; Granger Construction Company, Construction Management; Structural Design Inc., Structural Engineer; Peter Basso Associates, Electrical/Mechanical Engineer; Beckett and Raeder, Civil Engineer; BAi, Inc., Acoustical Consultant; Counsilman/Hunsaker & Associates, Pool Consultant; Baker Group, Food-Service Consultant; Jones & Philips Associates, Inc., Theatrical Consultant

Client:
Ann Arbor Public Schools;
Todd Roberts, Chief Administrator

Capacity:
1,600

Space/student:
238 sq. ft.

Area:
380,564 sq. ft.

Total cost:
$93,219,770

Cost/square foot:
$176

Completion:
August 2008

Photographers:
Fred Golden; Christopher Lark









The learning environment for this new school revolves around two complementary themes: providing magnet programs that focus on complex thinking and applied knowledge; and smaller learning communities that personalize the learning environment in a large building.

The site development was treated as an extension of the existing environment, which includes a densely forested surrounding community. Developing only 65 acres of the 110-acre property preserved the natural woodlands and wetlands. A four-story design configuration reduces the building footprint. The football/soccer stadium was set into a lower portion of the property, reducing visual clutter. The lack of a permanent irrigation system will maintain a harmonious site for people, wildlife and natural landscaping.

Other features: LEED silver-certified, energy-efficient building; horizontal-loop geothermal heating and cooling system; vertical axis wind turbine; structural-steel frame; steel-stud exterior wall systems; brick veneer and ground-face masonry units; horizontal ribbed steel panels; and tinted high-performance glass.

Escalante Mid-High School
Tierra Amarilla, New Mexico









Vigil & Associates Architectural Group, PC

Design team:
Raymond R. Vigil, AIA, Architect; Coupland-Moran Consulting Engineers, Inc., MEP; Quiroga Pfeiffer Engineering Corporation, Structural; Miller Engineering, Civil; Consensus Planning, Landscape; Blue Sky Builders, Contractor

Client:
Chama Valley Independent School District; Manuel F. Valdez, Superintendent

Area:	Total cost:	Cost/square foot:
43,230 sq. ft. (new); 25,530 sq. ft. (renovation)	$16.3 million	$237

Completion:	Photographers:
August 2008	patrickcoulie.com; Vigil & Associates

Extensive renovations and a 43,000-square-foot addition converted an existing high school into a mid-high school for the village of Tierra Amarilla. About 150 high school students and 50 middle school students attend the new school.

The design of the school creates a state-of-the-art facility from portions of an old rural school building. New classrooms, science labs, computer and media centers were constructed.

A new commons area serves as not only a gathering space for students, but also a cafeteria and a performance space.

Natural light and views also were important to the design. High ceilings and clerestory windows bring daylight into the classroom corridors, and floor-to-ceiling windows in the commons capture views of the mountains across the northern New Mexico Chama Valley.

The project was completed in three phases to enable the school to remain operable throughout construction. With a very constrained existing site, instruction spaces had to be relocated at each phase to keep students clear of demolition and construction activities.

POST-SECONDARY

CITATIONS

Bruner/Cott & Associates
Macalester College, Institute for Global Citizenship
St. Paul, Minnesota ....p. 108

"The solution shows an excellent example of rigorous design. The location on campus axes is thought out well."

—2009 jury



Cannon Design
Worcester Polytechnic Institute, East Hall
Worcester, Massachusetts ....p. 109

"Students and the community are able to interact and connect with this design, while embracing learning opportunities on sustainability."

—2009 jury



CBT Architects
Middlebury College, Axinn Center at Starr Library
and Biomass Facility
Middlebury, Vermont .... p. 110

"A unique design that links existing buildings. This project provides maximum light and large spaces. Very well-done!"

—2009 jury



Visit SchoolDesigns.com.

OUTSTANDING POST-SECONDARY



pg. 122



p. 126



p. 129

Macalester College, Institute for Global Citizenship

St. Paul, Minnesota





Bruner/Cott & Associates

Design team:
Norris Strawbridge, FAIA, Principal-in-Charge; Jason Forney, AIA, LEED, Associate Project Manager; Jason Jewhurst, Project Manager; Erica Downs, LEED Administrator; Thomas Hannasch, PE, Project Manager, McGough, General Contractor; Edward Allen, Vice Preident, vanZelm Heywood & Shadford, Inc., MEP/HVAC; Tom Downs, President, BKBM Engineers, Structural; Robert Linder, Karges-Failconbridge, Inc., Commissioning; Lee Johnson, Kalin Associates, Inc., Specifications; Deb Edwards, Lighting Matters, Inc., Lighting; Marc Rosenbaum, PE, Principal, Energysmiths, Sustainable; Bob Close, Principal, Close Landscape Architecture, Landscape; Jim Bloom, Department of Safety and Inspections, Code; Thompson & Lichtner Co., Inc., Building Envelope; Andie Noonan, Roof Spec Inc., Roof

Client:
Macalester College; David Wheaton, Vice President for Administration and Finance

Area:	Total cost:	Cost/square foot:
17,000 sq. ft.	$5.8 million	$341

Completion:	Photographers:
May 2009	Richard Mandelkorn; Dana Wheelock

The Institute for Global Citizenship (IGC) unifies three academic units that had been dispersed across the campus: the International Center, the Center for Civic Engagement and the administrative offices of the IGC. The IGC provides a unified center for these activities and has become a symbol of the college's commitment to global citizenship.

The IGC principally is an administrative and research facility—with faculty and staff offices, student work rooms and convergence rooms—all organized around a central gathering space, the Great Court. A ground-level link connects the IGC with related operations in Kagin Hall, situated just to the north. The IGC is designed to accommodate a future phase to be situated to the east of the existing structure.

The IGC occupies the college's most public site. Pedestrian access is from the west, and service access comes from the east through an existing service that is shared with Kagin Hall. Adjacent to the entry is a garden featuring 100 percent indigenous plants that require no irrigation.

The design challenges were multiple and in some instances conflicted with one another:

- Achieve LEED platinum certification to demonstrate the college's commitment to sustainable design principles.
- Cost no more than other high-quality campus buildings, about $350/sq. ft. in 2008.
- Respect the scale, texture, palette and architectural traditions of the campus.
- Incorporate architectural traditions that acknowledge the IGC's role as a "citizen of the world."
- Create the principal entrance on the southeast corner in response to campus pedestrian pathways.
- Respond to the solar loading criteria in the massing and fenestration of the building.

The IGC sets a new standard for building envelope design achieved through a truly integrated design process. For the initial step in the design process, the team of engineers, environmental consultants and architects conducted a charrette and set rigorous targets for energy consumption and building envelope performance.

These goals included:

- Energy consumption that exceeded the criteria of the 2030 challenge.
- Total energy consumption of 25,000 BTUs/sf/year.
- Infiltration rate on 0.15 cfm/sf of envelope area at 50 pascals.
- 100 percent natural lighting and operable windows for every workplace.
- LEED platinum certification.

Energy models at the conclusion of the construction documents predict that the IGC will use about 30,000 BTUs/sf/year, equal to 20 percent of the energy consumed by the college's typical building.



"The solution shows an excellent example of rigorous design. The location on campus axes is thought out well."

—2009 jury



Worcester Polytechnic Institute, East Hall
Worcester, Massachusetts







Cannon Design

Design team:
Robert J. Peterson, AIA, LEED AP, Project Principal; Antonino Borgese, AIA, LEED AP, Project Designer; Lynne Deninger, AIA, LEED AP, Project Manager; Brian Pineau, Electrical Engineer; Timothy L. Cooke, Steve Dusza, Angelo Tasca, Cost Estimator; Julianna Chakmakian, Interiors; Gilbane Building Company, Contractor; Richard Moore Environmental Consulting, LEED Consultant; KMD Mechanical Corp., Mechanical Contractor; Ostrow Electric, Electrical Contractor; SRI Fire Sprinkler Corp., Plumbing Contractor; Cullinan Engineering, Civil Engineer; Haley and Aldrich, Inc., Geotechnical Engineer; H Carr and Sons, Acoustics Contractor; Ingersoll-Rand, Hardware Consultant; Greenwood Industries, Inc., Roofing Contractor; Brown Sardina, Inc., Landscape; Yard Works, Landscape Contractor; Ipswich Bay Glass Co., Inc., Curtainwalls; Independent Flooring Corp., Flooring Contractor

Client:
Worcester Polytechnic Institute; Dennis D. Berkey, President

Capacity: 232 beds, 220-car parking structure	**Area:** 103,500 sq. ft.	
Total cost: $33 million	**Cost/square foot:** $318.84	**Completion:** July 2008

Photographer:
Anton Grassl/Esto Photographics

"Students and the community are able to interact and connect with this design, while embracing learning opportunities on sustainability."
—2009 jury



Seeking to increase the number of beds on campus and attract upperclass students back to campus, Worcester Polytechnic Institute commissioned the architect to provide planning and design services for East Hall.

The five-story facility, which provides 232 beds in a mix of single- and double-room suites and studios, continues the streetscape building edge established by neighboring buildings, and complements the character of the campus and surrounding area. The compactly designed and configured plan features central courtyards on the building's east and west sides.

First-floor public areas include administrative offices, gaming and community rooms, an exercise room, two music rooms, project rooms and a laundry/vending room.

A green roof and a stormwater monitor and testing station in the ground-floor lobby educate students and the public about green design and enrich the institute's environmental science curriculum. The 4,800-square-foot palletized roof system, situated on 17,800 square feet of Energy Star roofing, was designed to be an experimental roof for educating students and conducting research in green roof technology.

The university intends to seek LEED gold certification for the facility.

Middlebury College, Axinn Center at Starr Library and Biomass Facility · *Middlebury, Vermont*







"A unique design that links existing buildings. This project provides maximum light and large spaces. Very well-done!"

—2009 jury



CBT Architects	
Client: Middlebury College; Ronald D. Liebowitz, President	
Area: 91,000 sq. ft. (Starr Axinn); 9,600 sq. ft. addition, 9,000 sq. ft. renovation (Biomass)	
Total cost: $25 million (Starr Axinn); $7.7 million (Biomass)	**Cost/square foot:** $274.73 (Starr Axinn); $413 (Biomass)
Completion: September 2008 (Starr Axinn); February 2009 (Biomass)	**Photographers:** Jonathan Hillyer; Brett Simison

The Axinn Center at Starr Library at Middlebury College reinvents a beloved campus landmark, meets the need for additional classrooms and faculty offices, brings disparate departments together for increased interdisciplinary collaboration, and redefines the center of an expanding campus.

The project preserved the original 1927 neoclassical Starr Library and the 1957 Shepley Pavilion Reading Room, and added 50,000 square feet of new space. The program called for the historic reading rooms in the library to be restored and other existing spaces to be adapted as technologically "smart" classrooms and a 65-seat screening room. Two new symmetrical wings, designed to reference the style and character of the college's vernacular, provide faculty offices for multiple departments, a 45-seat tiered classroom, two-story film production and editing studios, and a light-filled winter garden that overlooks a landscaped, south-facing courtyard.

The Axinn Center ties into the college's central steam system to help Middlebury reach its goal of reducing carbon emissions to 8 percent below 1990 levels by 2012. Additionally, the design team recently completed a biomass heat-generation component and renovation of the existing power plant. The biomass is a co-generation system powered by wood chips—a local, renewable, carbon-neutral fuel. This will cut the college's use of #6 fuel oil in half and put it close to achieving its initial carbon-reduction goal.



Arizona State University, Vista del Sol
Tempe, Arizona





American Campus Communities

Design team: DWL Architects; Ikon.5 Architects; Craycroft McElroy Hendryx	
Client: Arizona State University; Michael Coakley, Associate Vice President/Executive Director, University Housing	
Capacity: 613 units; 1,866 beds	**Area:** 872,000 sq. ft.
Total cost: $137.5 million (including financing)	
Cost/square foot: $164.73 (assumes no financing costs)	
Completion: August 2008	**Photographer:** Cooperthwaite Photography



Vista del Sol's original intent was to meet Arizona State University (ASU)'s enrollment objectives while attracting upperclassmen back to campus with apartment accommodations, amenities and an active retail plaza.

To finance this project, ASU pioneered a long-term ground lease transaction with American Campus Communities. Through the American Campus Equity (ACE) program, ACC uses its own balance sheet to develop, manage and own on-campus student housing with no financial impact to ASU's credit, freeing resources for the university's academic mission.

Prior to Vista del Sol, the South Campus was a disorganized assembly of outdated housing and undeveloped parcels—a poorly articulated campus edge. The site had been defined by an informal and relatively unsafe traffic route of students walking to the campus core. Now, the new development channels thousands of student passersby along the Vista del Sol community center and retail plaza.



This community meets market expectations for today's upperclassman student with an expansive fitness center, media room, retail plaza, business center, basketball court and resort-style pool. The campus no longer suffers attrition because students do not move away in search of modern amenities and privacy.

Vista del Sol's architecture represents uniqueness in an open and welcoming community, yet is bounded and secure for its residents. The symbolic entrance into the community is through a shaded urban plaza flanked by the twin mixed-use residential towers situated at the terminus of the campus' primary pedestrian circulation malls. Reflecting a strong contemporary reference to the great public spaces of the past, this plaza is upfront and accessible. It serves as a common meeting ground for public and private communal interaction. Deeper within the community proper, there is greater privacy in courts that relate to the individual residence groups.

University of Houston at Sugar Land, Brazos Hall
Sugar Land, Texas



Archi*technics/3, Inc.

Associated firm:
PageSouthernlandPage

Client:
University of Houston System at Sugar Land and Wharton County Junior College; Richard D. Phillips, Associate Vice President

Area:
150,000 sq. ft.

Total cost:
$30.3 million

Cost/square foot:
$202

Completion:
April 2009

Photographer:
Richard Payne

The University of Houston System at Sugar Land partnered with Wharton County Junior College (WCJC) to design and construct Brazos Hall, a 150,000-square-foot academic building that will serve the educational needs of both institutions. The $30 million facility includes 39 classrooms, nine science labs, a 157-seat auditorium, computer labs, a nursing suite shared by both institutions and exercise facilities. The design team stacked similar functions on the upper floors and created "suites" of science labs, classrooms and faculty offices to increase efficiency and assist in wayfinding for students and faculty.

Special consideration was given to the mechanical systems. Three air-cooled chillers serving air handlers deliver conditioned air to fan-powered variable-air-volume (VAV) boxes. The building includes many energy-saving features, including energy-recovery outdoor-air units that recover 80 percent of the energy contained in the exhaust air; variable-flow primary chilled water flow; and VAV zoning system. The laboratories use state-of-the-art air-control devices to protect occupants from harmful substances.









Saint Mary's College, Spes Unica Hall
Notre Dame, Indiana





Architecture Design Group, Inc.

Associated firm: Ballinger

Design team: ADG: Jed Eide, John Mellor; Ballinger: Terry Steelman, Elizabeth Mahon		
Client: Saint Mary's College; Carol Ann Mooney, President		
Area: 65,000 sq. ft.	**Total cost:** $13 million	
Cost/square foot: $200	**Completion:** August 2008	**Photographer:** Matt Cashore

Spes Unica Hall is a new 65,000-square-foot academic building at Saint Mary's College in Notre Dame, Ind. This building contains 17 classrooms, and more than 90 faculty and staff offices. The new building is home for 14 academic departments and five institutes, including the Center for Academic Innovation and the Center for Women's Intercultural Leadership.

The building contains a variety of classroom configurations ranging from a large, oval 60-person classroom with tiered seating to small seminar-style classrooms for eight to 12 students.

The building also provides specialized social science labs, numerous group study and conference rooms, a reflection room, and a cafe connected to an outdoor rooftop terrace. The heart of the building is a two-story student commons that overlooks a large campus lawn. The south-facing windows in the commons enable sunlight to penetrate deep into the building interior.

The forms and materials used on the exterior of the building have been designed to complement the existing architecture on the Saint Mary's campus. Construction on the building began in spring of 2007 and was completed in time for classes in fall 2008.





North Georgia College & State University, Student Recreation Center · *Dahlonega, Georgia*



Cooper Carry, Inc.

Design team:
C. Timothy Fish, AIA, LEED AP, Principal-in-Charge; Rick Fredlund, AIA, LEED AP, Project Manager; W. Rick Kinkade, AIA, LEED AP, Project Architect; Brian Campa, LEED AP, Staff Architect; Sedki & Russ Engineers, Structural Engineer; Rosser International, MEP Engineer

Client:
North Georgia College & State University; Jeff Davis, Associate Vice President for Facilities

Capacity:
3,500

Area:
58,000 sq. ft.

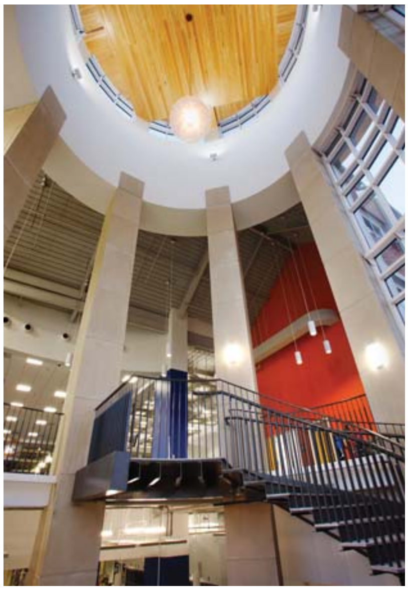
Total cost:
$27,552,000 (includes rec center, landscaping and parking deck)

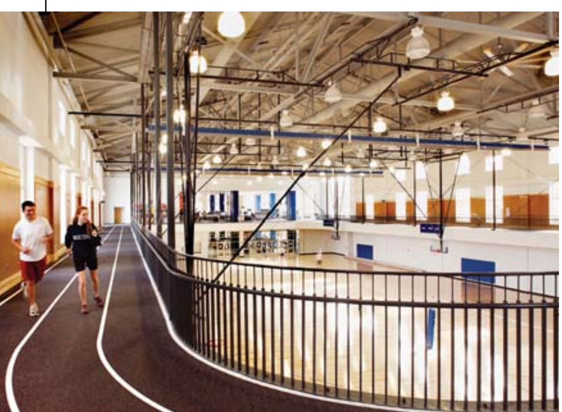
Cost/square foot:
$215

Completion:
September 2008

Photographer:
Dave Dawson Photography









North Georgia College & State University's recreation center and parking deck, a 58,000-square-foot recreation center over a 600-car parking deck, was not just a new building added to a campus, but an integrated planning process that resulted in an urban intervention, integrating the surrounding town and campus.

The structure is nestled into the hillside on the edge of the campus adjacent to an old town square. The goal of the project was to establish a new hub for student activity that would connect seamlessly to the existing campus core while acting as a mediator to the community. Student interaction and community unity were important guiding design principles. Program elements include three regulation-size basketball courts, fitness and free-weight areas, a 35-foot climbing wall, 1/10-mile running track, aerobic spaces, offices and locker rooms.

The recreation center now plays an important role in developing the university's sense of place, and now is the focal point of the campus.

University of Georgia, Tate Student Center Renovation and Expansion · *Athens, Georgia*







Cooper Carry, Inc.

Associated firm: MHTN Architects, Inc.; Paul Cheeks—Architects

Design team:
C. Timothy Fish, AIA, LEED AP, Principal-in-Charge; Christopher Bivins, AIA, LEED AP, Project Architect; Krista Theiler, AIA, LEED AP, Project Architect; Uzun & Case Engineers, Structural Engineer; Nottingham, Brook & Pennington, MEP Engineer

Client:
University of Georgia; Danny Sniff, Associate Vice President for Facilities Planning

Capacity: 3,270

Area: 95,000 sq. ft.

Total cost:
$51 million (rec center expansion, renovation, parking deck and landscape)

Completion: June 2009

Photographer: Christopher Bivins

The Tate Student Center expansion and renovation is at the heart of the University of Georgia campus. In addition to nearly doubling the space for student programs and activities, the $51 million project remakes this portion of campus and offers seamless connections for the many pathways intersecting the project.

The project included 95,000 square feet of new space in three floors on top of a two-story, 508-space parking deck. Project elements included a 12,000-square-foot multipurpose space; gracious lounge areas; four new retail food operations; multiple meeting rooms; and two new landscaped quad areas.

The architect also handled extensive renovations to the existing space, which transformed an 8,000-square-foot ballroom into a two-story student and staff office space. The renovated area also includes two dance rehearsal rooms; campus administrative offices; an upgraded exterior of the movie theater; and a new home for the campus radio station.

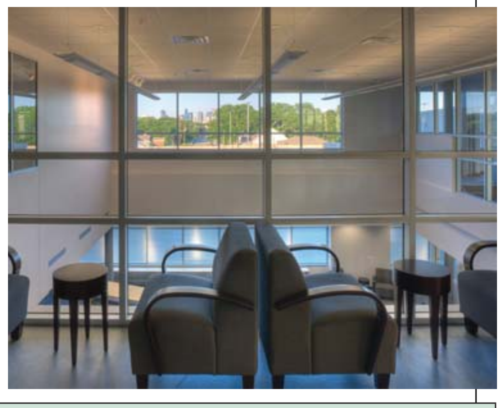




Dallas County Community College District, El Centro College, West Campus · *Dallas, Texas*









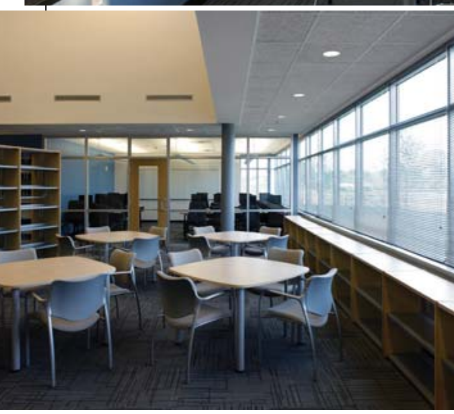
Brown Reynolds Watford Architects

Design team:
Craig Reynolds, FAIA; Lisa Lamkin, AIA, LEED AP; Douglas Hankins, Associate AIA; Andrew Evertson, AIA, LEED AP; Charles Brant, AIA, LEED AP; Jenny Hankins, LEED AP

Client:
Dallas County Community College District; Felicitas "Fela" Alfaro, Executive Dean of Student and Enrollment Services

Area:	Total cost:
34,000 sq. ft.	$8.67 million
Cost/square foot:	**Completion:**
$255	May 2009

Photographer:
Michael Lyon Photography



Responding to the needs of the West Dallas community, El Centro College, the urban hub of the Dallas County Community College District (DCCCD), is expanding its campus to include a new 34,000-square-foot, two-story facility. The architect worked closely with a multidisciplinary college committee to design a facility that reflects the unique academic character of the college, and connects the community to the opportunities offered at El Centro College.

Designed to welcome community use in addition to more traditional college courses, the site is situated strategically near the Dallas Housing Authority communities of West Dallas, Dallas ISD Pinkston High School and the West Dallas YMCA. The L-shaped building defines the street edge and frames a courtyard on the interior side of the site.

The academic wing of the facility parallels busy Hampton Road, and the community room provides views outward to the contained garden courtyard. Expansive areas of glass enable transparent entryways on both sides of the building. These entries are connected by a linear double-volume lobby space that invites the community to the opportunities within.

Cedarville University, Center for Biblical and Theological Studies

Cedarville, Ohio







DesignGroup

Design team:
Danis Builders, Construction Manager; Paul J. Ford, Structural Engineer; Heapy Engineering, Plumbing, Mechanical, Electrical, Civil Engineering; Kinzelman Kline Grossman, Landscape Architect; Bowser Morner, Geotechnical Engineer

Client:
Cedarville University; John Anglea, Vice President, Business

Capacity: 833	**Space/student:** 72 sq. ft.
Area: 60,000 sq. ft.	**Total cost:** $11.5 million
Cost/square foot: $192	**Completion:** July 2008

Photographer:
Brad Feinknopf



Cedarville University needed a home for its curriculum's core study area: biblical and theological studies. This 60,000-square-foot facility was designed as a physical representation of this theological core.

The facility's placement alongside a previously underused lake in the center of Cedarville's campus created a variety of exterior public spaces (paths, plazas, quads, seating areas) that foster interaction and collaboration among students and faculty.

To reinforce a desired biblical message of being "the light of the world," elements celebrating natural light, such as clerestory lighting, roof monitors, a pseudo-stained glass curtainwall, etched glass panels with scripture quotes, and tall light-filled spaces, were incorporated in the building design.

Internally, the building provides a diversity of informal and formal gathering spaces, classrooms, and theaters for students and faculty to come together and share ideas.

The facility was intended to inspire and cultivate the students of today. The building strongly delivers on its promise to make the old new again, breathing a fresh, contemporary life into the ancient theological studies it preserves within.

Phoenix College, Fine Arts Building
Phoenix, Arizona



DLR Group

Design team:
Gary Worthy, Design Leader; Stan Axthelm, Project Manager

Client:
Phoenix College; Dale Doubleday, Department Chair, Art and Music

Capacity:
290

Space/student:
97 sq. ft.

Area:
28,000 sq. ft.

Total cost:
$5.74 million

Cost/square foot:
$205

Completion:
April 2009

Photographer:
Mark Boisclair











The Phoenix College motto is "Go far, close to home." With this in mind, the new fine-arts building creates educational and social settings that go beyond traditional community college classrooms. The ideas of extension and interaction define the architecture and programming of the fine-arts building, providing opportunities for engagement that transcend the physical enclosure of the building.

The building houses photography, graphic arts and media arts, arranged strategically to foster interaction and interdependence between programs. Traditional painting and computer graphics coexist harmoniously with only a movable partition between them.

Shaped by the building's form, the ground-level courtyard creates a welcoming entry to the auditorium and on-grade ceramics rooms with exterior kilns. A monumental stair to the second floor encourages student interaction, and the adjacent art gallery provides an opportunity for the public to view student work and chat with emerging artists. The gallery and rooftop terrace were designed to accommodate international art exhibits and larger public events as well.

The surrounding desert environment is dynamic, changing from day to night. The rooftop terrace offers a contemplative setting in which students can watch the Phoenix skyline emerge above the Valley of the Sun.

Mount San Antonio College, Music Building Addition
Walnut, California





Dougherty + Dougherty Architects LLP

Design team: Brian Paul Dougherty, FAIA, LEED AP, Partner-in-Charge		
Client: Mount San Antonio Community College District; John Nixon, President/CEO		
Area: 5,376 sq. ft.	**Total cost:** $3.2 million	**Cost/square foot:** $595
Completion: December 2007	**Photographer:** RMA Photography	

The Mount San Antonio College Music Building Addition represents a significant expansion of the existing facility to include additional administrative office and practice space. The lower level provides large and small music and band program offices, and large and small practice rooms. The upper level houses one large practice space that includes portable risers, a portable stage and a variety of acoustic accessories to provide a flexible and creative environment.

The addition is sited in an existing courtyard, and draws architectural features and materials from the surrounding buildings to enhance the character of the performing-arts complex. The facilities provided complete the long-range program in support of the performing arts and music curriculum.





Bismarck State College, National Energy Center of Excellence

Bismarck, North Dakota













Built on the edge of Bismarck State College's hilltop campus, the National Energy Center of Excellence is dominated by dramatic views of the Missouri River Valley. Instead of placing the facility on the crown of the knoll, the building is nestled into the hillside. The entrance is on the third floor with a three-story atrium serving as a light well into the lower level.

Program requirements included classrooms, learning labs and faculty offices for the Department of Energy Education. Additional program requirements included offices and hospitality areas for college administration. The energy community and alumni showed their support of Bismarck State College's role in the future of energy generation by providing donations that funded the majority of the project.

Designed to receive LEED silver certification, the building serves as a learning lab for energy conservation. Sustainable design features include retractable solar shades regulating daylighting in 75 percent of the building; geothermal heating/cooling; fly-ash concrete; and reliance on regional sources for building materials with low-VOC and 20 percent recycled content.

EAPC

Design team:
Don Barsness, AIA, Architect; Doug Beaudoin, ASID, Interior Designer; Paul Breiner, Project Manager

Client:
Bismarck State College Foundation; Gordon Binek, Vice President for College Advancement/Executive Director

Area: 114,500 sq. ft.

Total cost: $15.15 million

Cost/square foot: $132.31

Completion: August 2008

Photographer:
Rhet Fiskness

Purchase College-State University of New York, New 300-Bed Residence Hall · *Purchase, New York*





Einhorn Yaffee Prescott/EYP, Architecture and Engineering PC

Associated firm: Carol R. Johnson Associates, Inc., Landscape Architects

Design team:
David Clemenzi, Paul Davies, Daljeet Sandhu, Charles Wellcome, Christopher Gavlick

Client:
Purchase College-State University of New York;
Thomas J. Schwarz, President

Area:
96,000 sq. ft.

Total cost:
$22 million

Cost/square foot:
$230

Completion:
August 2006

Photographer:
Purchase College

The new 300-bed residence hall has raised Purchase College's housing population to about 2,600 beds. The 96,000-square-foot, four-story brick building includes an entry courtyard and outdoor terrace. The first floor of the building is mixed use and contains 10,000 square feet of retail space, offices, classrooms and a common room used for campuswide functions and instructional space.

The construction of the new residence hall is the first phase in the development of a campus "commons." The commons will be the setting for campuswide programs attracting students, faculty and surrounding community and will create a sense of arrival to the campus. The challenge for the architect was to design a residence hall to serve as housing and a public gathering place to promote interaction beyond the classroom.

The upper three floors are residential double-stack corridors; each room contains two beds, wardrobe closets and a bathroom. Each wing is arranged to function as a learning community. There is housing for a residence coordinator, faculty/staff apartments, and shared space for a study and social lounge.





Hamilton College, Kirner-Johnson Social Sciences Building
Clinton, New York







The Kirner-Johnson Building is a 51,000-square-foot building constructed in 1971. The facility houses academic functions of economics, history, sociology, political science, anthropology, public affairs, writing center and oral communications center.

The architect was commissioned to provide renovation and expansion services to the building, which is part of a multi-building complex for the visual and performing arts, student social interaction and dining. The architect, having previously worked on several of the complex's buildings, understood how careful planning would help retain the building's integrity and enhance the college's academic standards.

Phase I includes an addition, which provides 39,000 square feet of flexible and alternative social-science classrooms, seminar spaces, faculty and department offices that will supplement and enhance the teaching facilities.

Central to the building's design is a daylighted two-story commons with a meandering water feature. It provides the space needed for student activities and informal gathering. The new space is designed to encourage students to stay in the building between classes, thereby increasing student and faculty interaction.

Phase II will renovate 51,000 square feet of existing classroom and faculty office space, and will address accessibility, mechanical, electrical and fire-protection systems.

The project is on track to receive LEED gold certification.

EwingCole

Design team:
Thomas Appelquist, Design Principal; Charles Belson, Managing Principal; Neall Distad, Project Architect; Peter Welsh, Structural Engineer; William Jarema, Mechanical Engineer; Michael Brumberg, Electrical Engineer; Corina Vijeu-Pias, Fire Protection Engineer; Amy Fedor, Construction Administrator

Client:
Hamilton College; Karen Leach, Vice President/Administration and Finance

Area:
39,000 sq. ft. (addition)
51,000 sq. ft. (renovation)

Total cost:
$23 million (without sitework);
$28.8 million (with sitework)

Cost/square foot:
$255

Completion:
July 2009







"The addition and renovation of Kirner-Johnson has recaptured and created wonderful space for study and community interaction."

—Steve Bellona, Associate Vice President for Facilities and Planning





Brigham Young University, N. Eldon Tanner Building Addition
Provo, Utah







The new building is an 85,000-square-foot addition to the original Marriott School of Management building, designed by the architect in 1982.

The two buildings are connected by a new atrium that enabled the existing building to operate uninterrupted during the construction of the addition. The wall between ultimately was removed and the buildings are connected at every level. The atrium serves as a single main entrance to both buildings. The floors are arranged around case rooms with team study rooms surrounding them. The tiered case rooms foster interaction between the instructor and students, as well as among students. The study rooms are for groups working together from classes being taught in the case rooms.

The project is on the periphery of campus and has its own food service in a New York style deli. The deli is adjacent to an open study area that has booths reminiscent of those that were in the original student commons. The top floor has an MBA office suite and an assembly hall that can host banquets and special events.

FFKR Architects

Design team:
Mark Wilson, AIA, LEED AP, Principal-in-Charge; Osamu Uchiyama, Designer; TBS+A, Structural; Heath Engineering, Mechanical; ECE, Inc., Electrical; Jacobsen Construction, Contractor

Client:
Brigham Young University; Ole Smith, Assistant Administrative Vice President, Physical Facilities

Area: 85,678 sq. ft.; 280 parking stalls	**Total cost:** $18.65 million
Cost/square foot: $217.75	**Completion:** October 2008

Photographer:
Paul Richer

Centre College, Pearl Hall

Danville, Kentucky



Hastings & Chivetta Architects

Associated firm: CMTA Consulting Engineers, MEP Engineer

Design team:
Christopher Chivetta, PE, LEED AP, Principal-in-Charge; Dennis Lammert, AIA, LEED AP, Project Manager; Tom Anagnos, AIA, LEED AP, Design Architect; Chris Rollhaus, AIA, LEED AP, Project Architect; Tim Johnson, AIA, LEED AP, Construction Administration; Catrina Cook, IIDA, LEED AP, Interior Designer; Donald L. Crayne, PE, LEED AP, Mechanical Engineer; David R. Higgins II, RCDD, LEED AP, Electrical Engineer

Client:
Centre College; John E. Cuny, Vice President of Finance/Treasurer

Capacity: 146	**Space/student:** 383 sq. ft.
Area: 55,900 sq. ft.	**Total cost:** $11.5 million
Cost/square foot: $205.72	**Completion:** July 2008

Photographer:
Sam Fentress











Carefully designed in context to existing historic architecture, Pearl Hall is the newest student residence on Centre College's 115-acre campus. The building contains living quarters for 146 juniors and seniors and gives them more freedom and a transitional experience between traditional campus housing and living on their own after graduation.

Most units are suites with four single bedrooms, two bathrooms and a common area with a convenience kitchen. Socializing and study spaces are featured throughout the hall, including a lounge on the main level for large gatherings, a group study room on the lower level and community kitchens on each floor. The front porch is furnished with rocking chairs with a view of the main campus. The courtyard deck overlooks the soccer field.

Pearl Hall used measurable sustainable principles in the development, design and construction of the project—attaining LEED-NC gold certification. The 2 percent initial added investment (based on construction cost) will realize a 20 percent life-cycle savings, as well as have a positive impact on the environment and the quality of life for students.

East Central College, Nursing, Health and Science Building

Union, Missouri









East Central College's new two-story Nursing, Health and Science Building is the first new building to be constructed on campus in nine years. For this important project, the architect met the goal of placing all of the college's science and allied-health programs—including classrooms, laboratories, offices and support space—into one facility.

The building includes six classrooms of various sizes, four academic computer labs, an 80-seat lecture hall, offices with adjacent research facilities, and a conference room with kitchenette. The first floor has separate facilities for the nursing and EMT/paramedic programs, including labs for clinical nursing and nursing simulation. Access to the 640-square-foot ambulance garage bay is through the EMT/paramedic lab.

Science laboratories on the second level are dedicated to general chemistry, organic chemistry, genetics/microbiology, ecology/botany and anatomy/physiology, with accompanying prep rooms, instrument rooms and other required support spaces.

The exterior utilizes light-colored brick and precast concrete panels with a low-slope roof similar to the existing buildings on campus. Large windows and glass brick provide maximum natural light in the interior.

Hastings & Chivetta Architects

Design team:
Christopher Chivetta, PE, LEED AP, Principal-in-Charge; Dennis Lammert, AIA, LEED AP, Project Manager; Jeff O'Brien, AIA, LEED AP, Project Designer; Chris Rollhaus, AIA, LEED AP, Project Architect; Dan Passanise, AIA, LEED AP, Construction Administrator

Client:
East Central College; Jon Bauer, Executive Dean of Finance and Administration

Area: 49,857 sq. ft.	**Total cost:** $12.3 million
Cost/square foot: $246.71	**Completion:** January 2009

Photographer:
Sam Fentress

Ivy Tech Community College, Madison Campus Expansion and Renovation · *Madison, Indiana*



Hastings & Chivetta Architects

Associated firm: The Estopinal Group, Architect of Record

Design team:
Christopher Chivetta, PE, LEED AP, Principal-in-Charge; Dennis Lammert, AIA, LEED AP, Project Manager; Jeff O'Brien, AIA, LEED AP, Design Architect

Client:
Ivy Tech Community College; Jeff Hollkamp, Executive Director of Business Affairs

Area: 104,500 sq. ft.	**Total cost:** $17,955,000
Cost/square foot: $171.82	**Completion:** August 2008

Photographer:
Sam Fentress

The statewide, open-access Ivy Tech Community College of Indiana has grown into the state's second-largest post-secondary institution. To meet growing enrollment, a major expansion and renovation of the campus was needed.

A two-story addition consisting of two linear academic wings was added to the one-story Academic Building. At the center is a new student commons dominated by a skylighted rotunda with an adjacent student lounge. New components include a library, classrooms, 170-seat lecture hall and computer labs.

The expansion and renovation were programmed for new academic courses including paramedic services, nursing, medical assistant, marketing, visual communications, wide-area networking, design technology, banking and finance, building preservation and restoration, and supervision of healthcare facilities.

New services include a wellness center, campus life center, student affairs, bookstore and offices. A high-tech videoconference suite supports distance learning and advanced technology, and state-of-the-art equipment is present throughout the facility.

The existing building's exterior was renovated to match the new campus character, unifying the facility. Roadways, parking and walkways were reconfigured and constructed to enable easy access to the campus.











Macalester College, Leonard Center
St. Paul, Minnesota



Hastings & Chivetta Architects

Design team:
Christopher Chivetta, PE, LEED AP, Principal-in-Charge; Erik Kocher, AIA, LEED AP, Design Principal; Don Keane, AIA, Project Manager; Mark Keane, AIA, LEED AP, Project Architect

Client:
Macalester College; Mark Dickinson, Director of Facilities Management

Area:
195,000 sq. ft.

Total cost:
$31 million

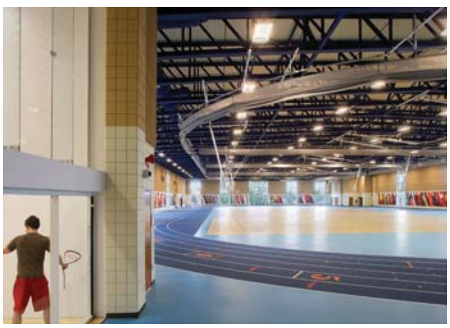
Cost/square foot:
$158.97

Completion:
July 2008

Photographer:
Sam Fentress









Macalester College's goal for the Leonard Center was to offer opportunities for students to pursue personal fitness, socialize and participate in recreational and varsity team sports, while enhancing the college's ability to recruit and retain students.

The three-story facility features social areas such as lounges, a juice bar and shops. The Wellness Center has examination rooms, a testing laboratory, offices, quiet room and resource rooms. The competition gymnasium has retractable seating for 1,200 spectators and meets the necessary guidelines to host regional and national competitions.

Other components include a fieldhouse with four full-size tennis/basketball courts surrounded by a 200-meter track; a natatorium with off-deck viewing; a 14,000-square-foot fitness center with cardio machines and weights; racquetball courts; multipurpose spaces for diverse activities such as dance, yoga and martial arts; and an athletic training room with hydro pool.

About 30,000 square feet of space includes a Hall of Fame reception area, club sports offices, administration and coaches' office suites, storage, laundry facilities and underground vehicle parking.

Green architecture was a huge consideration for the project. The new facility uses recycled materials throughout: elevators run on vegetable oil, windows are placed strategically to take advantage of natural light and heat, and the building's design enables efficient heating and cooling. About 90 percent of the previous facility was reused or recycled: the old fieldhouse was moved west of town to become a horse stable.

Eastfield College, Learning Center
Mesquite, Texas





HKS, Inc.

Design team:
ARX Design, Learning Environments Specialist; Austin Commercial/Con-Real, Inc., Program Manager/Owners Representative; Rogers-O'Brien Construction Company, General Contractor; Caye Cook & Associates, Landscape Architecture; L.A. Fuess Partners, Inc., Structural Engineer; PwrSolutions, Inc., Mechanical Engineer; Pacheco Koch Consulting Engineers, Civil Engineer; Datacom Design Group, Technology Consultant

Client:
Dallas County Community College; Lindle Grigsby, Dean, Workforce Development

Capacity:
550

Space/student:
100 sq. ft.

Area:
55,000 sq. ft.

Total cost:
$11 million

Cost/square foot:
$200

Completion:
January 2009

Photographer:
Blake Marvin/HKS

The Eastfield College Learning Center is the result of a nontraditional vision of how educational spaces can work. The college's executive administration and faculty challenged the conventional definition of a classroom, creating spaces that support education through a diverse selection of studio learning environments.

Studio spaces vary in size, are technology-intense and have an informal feel. The pathway circulation system is activated with a variety of informal learning social nooks and niches. This encourages faculty, students, administrators and visitors to cross paths and mingle so they can work and socialize in an environment that supports spontaneous interaction.

The building is a prominent new gateway to the campus. A monumental stair leads to a new bridge component that connects to the existing second-level circulation system of the campus. The bridge also includes comfortable seating areas for passersby to sit and talk—furthering communication opportunities. The two-story entry atrium with comfortable seating options includes a coffee kiosk/Internet cafe to further promote the social aspect of learning. Adjacent conferencing facilities can be used after hours for school and community activities.





Brown University, J. Walter Wilson Building

Providence, Rhode Island













The J. Walter Wilson Laboratory at Brown University, dedicated on Oct. 5, 1962, came as a much-needed addition to the campus. Supplying more than 40,000 square feet of research and instructional space (and an extra 10,000 square feet in 1983 with the Sol Koffler wing), the building greatly supplemented Brown's existing science facilities. The constant use of the facilities had worn the structure down, and the combination of required university-wide utility work and a new life-sciences building brought about the closing of the once-proud facility.

Returning the noteworthy structure to full and improved functionality, this time as a student-services center with mailroom facilities, required a multi-faceted approach. Highlighted goals for revival of the laboratory included the improvement of building legibility and sense of place, activation of the streetscape to draw in students, and unification of the main building and addition with a nearby affiliated structure, the neo-Georgian-styled Faunce House.

Most notable of the improvements to this venerable structure is the new 60-foot glass entry tower, opening up the previously darkened corridors and creating well-lighted, inviting spaces. The finished building houses 11 disparate university departments, including student mail services, the psychology department and more.

Lerner | Ladds + Bartels, Inc.

Design team:
Shawmut Design & Construction, Construction Manager; Odeh Engineers, Inc., Structural Engineer; Wozny/Barbar & Associates, Inc., MEP/Fire Protection Engineers

Client:
Brown University; Stephen Maiorisi, Vice President, Facilities Management

Area: 62,200 sq. ft.	**Total cost:** $18.7 million
Cost/square foot: $300	**Completion:** December 2008

Photographer:
Warren Jagger Photography

The Catholic University of America, Opus Residence Hall

Washington, D.C.



Little	
Associated firm: Opus A/E	
Design team: Beth Buffington, Richard Naab, Shannon Rydell	
Client: The Catholic University of America; Carl A. Petchik, Director of Facilities Planning and Construction	
Capacity: 402	**Space/student:** 300 sq. ft.
Area: 120,950 sq. ft.	**Total cost:** $27 million
Cost/square foot: $223	**Completion:** December 2008
Photographer: John Cole	

Phase I of a new residence hall complex at the Catholic University of America, Opus Hall is a seven-story, 400-bed suite-style residence hall for upperclassmen. The Collegiate Gothic-style building is designed to achieve LEED silver certification through several methods, including the use of innovative R26 precast sandwich panels for the exterior walls; energy-efficient lighting, appliances and equipment; and other sustainable elements, such as stormwater management. Catholic University intends to use the hall to demonstrate the value of sustainable design to the campus and broader community.

The site for this project occupies a prominent location on campus, serving as an important campus edge and strong visual face to the surrounding Washington, D.C., community. The architectural features of the hall provide continuity in planning and design language, serving as the anchoring building for the newly created residential precinct.

Once complete, the three-phase complex will occupy the street edge and create an expansive communal space on a terraced lawn on the interior quadrangle. A large, landscaped arrival plaza serves as the connection between the lawn and the campus beyond.

Public spaces within the buildings are focused onto the lawn, and adjacent outdoor terraces encourage student activity and interaction. The architectural vocabulary is intended to be contextual to the neighboring residence halls, and serve as modernized interpretations of the campus' Gothic roots.







University of South Carolina Upstate, Health Education Complex
Spartanburg, South Carolina





McMillan Smith & Partners Architects, PLLC

Associated firm: Enwright Associates

Client: University of South Carolina Upstate; John Stockwell, Chancellor		
Area: 150,000 sq. ft.	**Total cost:** $28 million	**Cost/square foot:** $186
Completion: February 2009	**Photographer:** Marc Lamkin Photography	

As the largest building on the 308-acre University of South Carolina Upstate campus, the new Health Education Complex is a hub of activity for students. The design combines the strong academic programs of the Mary Black School of Nursing and the School of Education with enrollment services, the university bookstore and a wellness center. The facility provides first-rate recreation, exercise, information and instructional opportunities for the campus community.

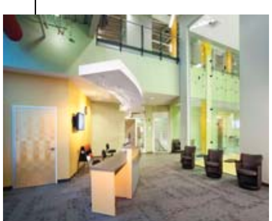
With its classrooms, labs, tiered lecture halls, study rooms, expanded bookstore, open gathering areas, and coffee bar and deli, the facility is a synergistic blend of academic, recreation and social spaces.

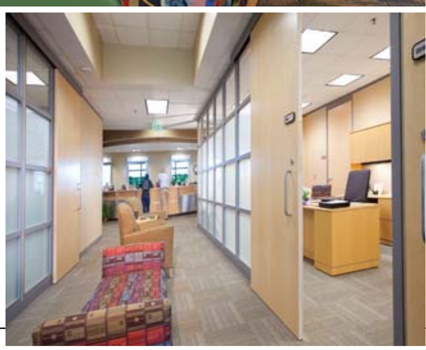
Functionally, the combination of academic guidance, financial services and a bookstore created a seamless enrollment-management function and a hub of student activity. The facility is close to the residential living core, on axis with the proposed growth of the campus, and reflects a timeless traditional feel of brick and stone already established on the campus.











Chapman University, Residential Complex
Orange, California








College campuses throughout the nation are faced with surging student populations and limited land resources. Chapman University met this challenge with new student housing developed with greater intensity, innovation and complexity.

The project site reclaims an existing low-density, two-story residence hall and the adjacent surface parking lot, and intensifies it into a four-story building of 302 beds of residence hall and apartment-style housing over a single-level podium parking garage. The design also includes a 26,000-square-foot full-service dining hall with an 11,000-square-foot conference facility, special guest suites, alumni center and career-development center above.

The signature feature highlighting the complex and the student housing neighborhood is an 85-foot-tall tower that includes a rock-climbing wall. The complex is designed to complement the character of the existing Craftsman bungalow-style homes on its neighboring street and the nearby Old Town Orange area.

MVE Institutional, Inc.

Design team:
Robert Simons, AIA; Jeff Larsen, AIA; Jean Pitts, Architect; Mark Kim, AIA; Anuradha Chakkar, Robert Puleo, Rachel Cendejas, LeRoyal Jones, Erik Chrestensen

Client:
Chapman University; Harold Hewitt, Executive Vice President/COO

Capacity:
302

Area:
198,405 sq. ft.

Total cost:
$35 million

Cost/square foot:
$177

Completion:
July 2009

Photographers:
Kyle Zaleski; Kyle Hjelmeseth; Mark Kim; KPFF Consulting Engineers

San Antonio College, Nursing and Allied Health Complex
San Antonio, Texas



O'Connell Robertson

Design team:
CFZ Group, Landscape Architecture;
Jaster-Quintanilla & Associates, Structural/Civil Engineering;
CNG Engineering, Electrical Engineering;
Project Cost Resources, Cost Estimating

Client:
Alamo Colleges; Robert E. Zeigler, President

Capacity:
1,000

Space/student:
120 sq. ft.

Area:
120,000 sq. ft.

Total cost:
$33,001,072

Cost/square foot:
$275

Completion:
August 2008

Photographer:
Chris Cooper Photography





The shortage of registered nurses in Texas exceeds 20,000. To support this critical workforce need, Alamo Colleges in San Antonio has expanded courses and degree plans to educate nurses and healthcare workers. The new Nursing and Allied Health Complex at San Antonio College provides state-of-the-art clinical environments and teaching labs to support this growing program.

The 120,000-square-foot facility includes a public clinic, as well as classrooms and clinical labs that emulate real-world healthcare environments. The facility supports dental technician/assistant, medical assistant, EMT, medical transcription and RN programs. Skill labs, exam rooms, nursing-simulator labs, crucial-care labs, LDR rooms, a pediatric lab, open nurse stations and an ambulance bay module include patient-simulator technology, beds and equipment used in today's hospitals. The complex design and engineering provide full hospital simulation tied to video recording and monitoring for teacher instruction. The facility has flexible, presentation-ready classrooms; open-area student lounges; and offices. Sustainable building strategies include solar shading devices, extensive daylighting controls, regional and recycled construction materials, and water-efficient landscaping.



Texas A&M University, McFerrin Athletic Center

College Station, Texas



O'Connell Robertson

Associated firm: Heery International, Sports Design Consultant

Design team:
Jaster-Quintanilla & Associates, Civil Engineer; Walter P. Moore, Structural Engineer; BAi, Acoustics; Acuity, Data/Communications; Schirmer Engineering, Code Consultant

Client:
Texas A&M University System; Kevin Hurley, Associate Athletic Director

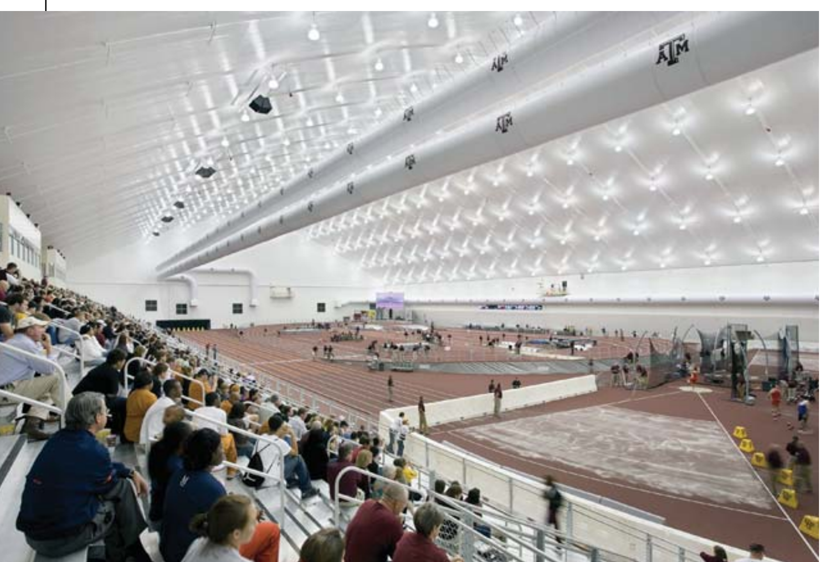
Capacity: 4,000	**Area:** 208,200 sq. ft.	**Total cost:** $35 million
Cost/square foot: $164	**Completion:** December 2008	**Photographer:** Chris Cooper Photography

To remain competitive with today's standards in Division I collegiate athletics, Texas A&M University needed a facility to provide protected space for practices and competitive events. The complex provides a building configuration whose flexibility allows for an entire slate of Aggie sports, recreational uses, and other university and community activities.

It includes a 75,600-square-foot indoor football practice facility and a 115,400-square-foot multipurpose facility with an indoor track. The football practice facility provides an unobstructed, clear span enclosure of a yard-line striped, regulation-size football field with a state-of-the-art drainable, synthetic turf system and goal posts at each end zone.

The Gilliam Indoor Track Stadium provides an NCAA-regulation track and field competition venue. Offering seating and amenities for 4,000 fans, the facility boasts 85,000 square feet of clear competition floor area. With a 100-foot peak, pole vault and throwing events can be held indoors alongside sprint lanes, high-jump stations; long- and triple-jump lanes and pits. The six-lane, 2,000-meter hydraulic, bankable track system is one of only 12 similar systems in the world.









University of Washington, School of Medicine, Phase II
Seattle, Washington



Perkins+Will

Design team:
Anthony Gianopoulos, Managing Principal/ Project Manager; Andrew Clinch, Project Architect/Designer; Tully Shelley, Planning Principal; Kelly Schnell, Designer; Sara Robinson, Interior Designer

Client:
University of Washington; Jill Morelli, Director of Facilities

Capacity: 800	**Area:** 441,640 sq. ft.
Total cost: $115 million	**Cost/square foot:** $260
Completion: June 2008	**Photographer:** Benjamin Benschneider

The University of Washington (UW) School of Medicine Phase II complex marks a bold new aesthetic in South Lake Union. In aluminum, glass and metal, the building's form reveals its functionality and expresses an open, modern architecture that is a departure from other medical and scientific buildings in the region. From its inviting courtyard nestled between the lab and administration buildings, to its landscaped cross-connection between two main streets, the design emphasizes integration within the neighborhood and surroundings.

Research laboratories are the core program for the three-building, 440,000-square-foot complex. The UW School of Medicine performs state-of-the-art biomedical research in these facilities, as a national leader in research grants from the National Institutes of Health and many international agencies. Planning was focused on facilitating communication and interaction through an open laboratory design, supported by adjacent specialty labs. Adding to research capabilities is the unique lab flexibility, which enables space to adapt to emerging technologies and research objectives.

Initial research disciplines are bio-medicine, genomics and bio-informatics. Common spaces, conferencing and break areas on every floor are placed to encourage interaction and team-building among scientists and technicians. Additional major elements for the complex include an administrative office building serving all of the School of Medicine, plus support and amenity spaces, including conferencing, auditorium and food service.









"Our new labs at South Lake Union are proving to be flexible, accommodating a wide variety of research programs, cores and centers, cutting-edge equipment and individual adjustments. Also valuable are the collaboration spaces beyond the labs: work spaces, team spaces, conference spaces and office suites. It is clear to us that the South Lake Union complex gives us a great platform for the future."

—Jill Morelli, Director of Facilities, University of Washington School of Medicine





University of Oklahoma, Gaylord College of Journalism and Mass Communication · *Norman, Oklahoma*



Rees Associates, Inc.	
Design team: Patrick Bumpas, AIA; Lisa Matthews, AIA, LEED AP; Farooq Karim, AIA, LEED AP; Richard Semtner, AIA, LEED AP; Kate Warren, LEED AP; Dennis Metheny, AIA, LEED AP	
Client: The University of Oklahoma; Joe Foote, Dean, Gaylord College	
Capacity: 1,320	**Space/student:** 81.7 sq. ft.
Area: 107,850 sq. ft.	**Total cost:** $25,427,440
Cost/square foot: $235.76	**Completion:** May 2009 (Phase II)
Photographer: Joseph Mills Photography	

The new Gaylord Hall, home to the Gaylord College of Journalism and Mass Communication, provides a state-of-the art teaching facility and learning environment for fast-paced industry changes.

The 107,850-square-foot facility was completed in two phases and anchors the University of Oklahoma's South Oval. Exterior architecture draws from the Cherokee Gothic vernacular prevalent on the historic Norman campus' academic core. Yet, sleek glass and a large outdoor news ticker meld traditionalism with more modern elements and convey the facility's purpose.

The project includes multimedia computer labs, classrooms, lecture halls, a library, broadcast production and technical facilities, a sound stage, auditorium and faculty offices. These functions support the various education sequences, such as professional writing, journalism, public relations, broadcasting and electronic media, and advertising, and reflect the trend of media convergence prevalent in today's communications industries.

Additionally, the Phase II expansion completed in 2009 added a unique feature: a student-run public relations and advertising agency featuring a variety of collaborative spaces, each with its own distinctive personality. Students will use idea-generation rooms, a commons area, a unique computer laboratory in the live/work/play environment, a focus-group suite and upscale client presentation suite to work for real-world public-relations and advertising clients. The expansion also is home to additional classrooms and a graduate area offering abundant space for work, socializing and collaboration.

The two-phase design will embrace an exterior courtyard, which serves as a gathering area for alumni and multimedia events. Two commons areas, a Hall of Fame room and a 180-person theater provide interior event venues, and a rooftop terrace offers views of the courtyard during outdoor events.







Florida Gulf Coast University, Lutgert Hall
Fort Myers, Florida



SchenkelShultz Architecture

Design team:
Gary F. Krueger, AIA; Daniel M. Tarczynski, AIA; Timothy A. Wagoner, AIA; Drazen Ahmedic, AIA; Jon Dorsett

Client:
Florida Gulf Coast University; Wilson G. Bradshaw, President

Area:
62,693 sq. ft.

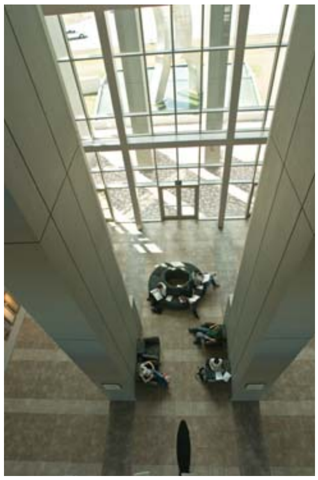
Total cost:
$17,494,817

Cost/square foot:
$279.06

Completion:
September 2008

Photographers:
Raymond Martinot; FGCU (exterior)





Lutgert Hall is the sophisticated home of the university's College of Business and is the signature building at the entrance of the Southwest Florida campus. The design concept was centered on the influences of global business transparency. As international business trends shift to more fluid and transparent methods of operation, the educational model of Lutgert Hall embraces the business future. The building design focuses on the concept of transparency, as well as blurring the boundaries between spaces.

Visitors are attracted to the main atrium that is filled with natural light and enables them to see through the building into the student courtyard. The circulation path and social spaces are situated along the inner perimeter of the building looking out toward the courtyard. The design provides students with the opportunity to interact both inside the building and outside in the courtyard. These transparent spaces embrace one another and celebrate student, faculty and community activity.

The academic spaces include case-study classrooms, specialty stock trading rooms, marketing portfolio spaces, and student collaborative zones.







Purdue University, Wiley Dining Court
West Lafayette, Indiana



Scholer Corporation

Associated firms: Ricca Newmark Design, Food Service/ Interior Design; Sherman Robinson, Inc., Food Service Consultant

Design team:
Fink Roberts & Petrie, Inc., Structural; Loftus Engineering, Inc., Electrical; VS Engineering, Inc., Civil; Superior Engineering, LLC, Civil Utilities Engineer; CONTEXT, LLC, Landscape Designer

Client:
Purdue University Residences; Jill A. Irvin, Director of Dining Services

Capacity: 500	**Area:** 46,450 sq. ft.	**Total cost:** $19 million
Cost/square foot: $409	**Completion:** August 2008	**Photographer:** Jon Denker/CAPS



To dine at Wiley Dining Court is to experience the future of collegiate dining services. In 2000, Purdue University embarked upon a mission to consolidate 11 university dining facilities into five modern dining courts. Wiley Dining Court represents the final piece of the university's culinary puzzle.

Outside, Wiley pays homage to the university's traditional architectural style of brick and limestone construction. However, creative use of angles, arches and sightlines gives the facility a refreshingly modern appeal. Inside, guests are greeted by an open, lodge-like dining atmosphere marked by vaulted wood ceilings; large windows; creative combinations of steel, carpet, terrazzo and tile; and intimate dining areas identified by stylish, individualized decor.

In response to an increasingly diverse student and community population, Wiley features a buffet where diners from inside and outside the university can sample cuisine from around the world. Menu items are made to order by chefs using state-of-the-art commercial kitchen equipment. Stations offering popular favorites such as pizza and burgers are found alongside stations offering international delights such as Thai pasta salad and Brazilian barbecue churrascaria.





St. Xavier University, Agatha O'Brien Hall
Orland Park, Illinois











The Agatha O'Brien residence hall at St. Xavier's campus is the fourth phase of a campus master plan the architect has been working on with the university over 10 years. The 27-unit residence hall features apartment-style accommodations and was built to LEED gold standards. It is situated in the heart of campus and sits adjacent to Rubloff Hall, which was the first university building in Illinois to receive LEED gold certification.

The project was designed using both natural and mechanical ventilation; a 50-foot-high circular glass stair tower draws tempered air to assist in summer night pre-cooling and winter heating. O'Brien uses 100 percent "green-e" power from mixed renewable-energy products to offset carbon emissions from all electrical energy consumed in the residence. The roof features a solar reflection system; the rain garden filters roof-water runoff; and the indoor air quality in the student rooms is significantly above ASHRAE standards.

Solomon Cordwell Buenz

Design team:
Chris P. Stefanos & Associates, Structural;
Environmental Systems Design, MEP;
Rundell Ernstberger Associates, LLC, Landscape

Client:
St. Xavier University; Judith Dwyer, President

Capacity:
107

Space/student:
395 sq. ft.

Area:
36,664 sq. ft.

Total cost:
$9,415,085

Cost/square foot:
$256.79

Completion:
August 2008

Photographer:
Jim Curtin

St. John's University, Residences
Queens, New York









Stonehill & Taylor Architects

Design team:
Neill Parker Jr., Principal; Joyce Ignacio, Project Architect; Scott Franks, Project Architect

Client:
St. John's University; Brij Anand, Vice President, Facilities Design and Construction

Capacity:
300

Space/student:
157 sq. ft. (plus outdoor space)

Area:
58,000 sq. ft.

Total cost:
$21,750,000

Cost/square foot:
$375

Completion:
August 2008

Photographer:
Walter Dufresne

The new residences at St. John's University (SJU) are situated near the campus' main quadrangle ("The Great Lawn"). Charged with creating student housing that also promotes a residential campus feel, the architect created a series of gracious three-story townhouse structures surrounded by shared courtyards.

The thoughtful design imparts a modern feel to the campus. At the same time, the archways and stonework integrate easily with the campus' traditional Gothic-style prestigious colleges, aligning it with the style of the Northeast region. For this project, the architect's expertise in university development, hospitality and historical preservation came together beautifully in a housing solution that forwarded the university's own branding goals—to develop a residential campus that would attract out-of-state students.

The design was inspired by Thomas Jefferson's checkerboard approach to urban planning, in which city blocks alternate with parks. The design also was influenced by carefully designed low-rise, high-density housing. With this project, the team found welcome opportunity to apply these ideals.

The residences, which accommodate 300 students, have created a warm home for students and complement SJU's plan for the future.

Hawkeye Community College, Student Center
Waterloo, Iowa



StruXture Architects

Design team:
Dan Channer, AIA, LEED AP, Lead Architect; M2B, Structural Engineer; Gilmor & Doyle, MEP

Client:
Hawkeye Community College; Galen Howsare, Vice President, Administration and Finance

Area:
25,949 sq. ft.

Total cost:
$4,550,018

Cost/square foot:
$175.34

Completion:
April 2008

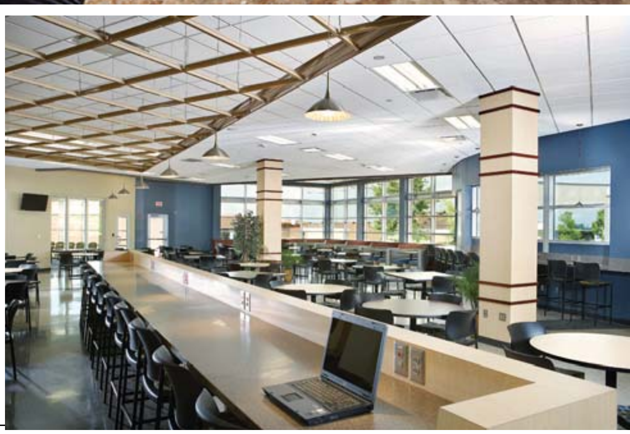
Photographer:
Design Photography Inc.

This new student center replaced an outdated and underutilized kitchen/cafeteria in the administration building. It provides a central campus gathering point and spaces for students to meet, work and study.

The student center is built with masonry bearing walls with brick veneer and high-efficiency curtainwalls. One challenge, because of its location within the existing campus buildings, called for replacing some existing service tunnel tops to support increased vehicle traffic.

The following requirements were designed within the new building: natural lighting to all major areas; two multipurpose/student learning spaces; open cafeteria and student union with views to the rest of the campus; a platform area for entertainers and presentations; and overall additional space for student organizations to congregate. The new, centrally situated student center has become the central hub for the campus and has increased food-service receipts by 70 percent.







College of St. Scholastica, Burns Wellness Commons
Duluth, Minnesota



TKDA

Design team: Kathryn Poore-Larson, AIA, Project Manager; William Armstrong, AIA, Project Architect; Richard Gray, Landscape Architect	
Client: College of St. Scholastica; Tom Brekke, Director of Facilities	
Capacity: 588	**Space/student:** 58 sq. ft.
Area: 33,918 sq. ft.	**Total cost:** $7.2 million
Cost/square foot: $212.27	**Completion:** September 2008
Photographer: John Gregor/Cold Snap Photography	



The Burns Wellness Commons is the foundation for academic, wellness, and sports and recreation programs at the College of St. Scholastica. The 186-acre campus of more than 2,000 students is situated among the hills overlooking Lake Superior. With a growing student population and a demand for an updated, functional student facility, the college charted a path to create a dynamic wellness center that would serve the collegiate community by providing a center for athletic programs, educational venues, recreation and athletics programming.

Challenged with significant elevation changes and a designated trout stream on the project site, the 33,000-square-foot "stepped" facility was designed to align with the sloping site and provides a walkout lower level for direct bus access to athletic and recreation programs. Stormwater-management techniques, such as pervious pavement, rain gardens and sand/peat filters, were used to maintain high water quality of runoff prior to entering the stream to avoid thermal and chemical changes in the water.







University of Kansas, Boathouse
Lawrence, Kansas











Nestled into a grove of cottonwood trees, the University of Kansas Boathouse was sited to enhance the environment, preserve open space, maximize river views and capitalize on natural light. The exterior has integrally colored site-cast concrete walls, an abundance of insulated high-solar-gain, low-e glass, and a deep overhanging roof to shade the glass from the mid-day sun.

The lower level houses rowing shells and maintenance facilities, and the upper floor comprises locker rooms, offices, a laundry room, athletic training facilities and a dedicated study space. Taking advantage of expansive river views, the building's dramatic team room is flooded with natural light and surrounded by an environmentally friendly Brazilian hardwood deck.

The boathouse is in the Kaw River floodway and is designed to accommodate floodwater up to 8 feet above the lower-level floor. The building's foundation extends more than 40 feet below ground. Other special considerations include the all-concrete structure, an electric elevator that automatically returns to the top floor, and the provision of all building services above floor level.

Treanor Architects

Associated firm: Peterson Architects

Design team:
Treanor: Michael Treanor, T. Andrew Pitts, Jan Burgess; Peterson Architects: Jeffrey D. Peterson

Client:
University of Kansas; Sean Lester, Associate Athletic Director/Internal Relations; Rob Catloth, Head Coach, Rowing

Area:
16,000 sq. ft.

Total cost:
$4,550,000

Cost/square foot:
$284

Completion:
September 2008

Photographer:
Steve Swalwell/Architectural Foto Graphics

Associated Mennonite Biblical Seminary Library
Elkhart, Indiana



The Troyer Group
Design team: Primera Engineering, 7Group
Client: Associated Mennonite Biblical Seminary; Ron Ringenberg, Vice President for Advancement Administration
Area: 37,500 sq. ft.
Total cost: $5.5 million
Cost/square foot: $146
Completion: August 2007
Photographers: Mary E. Klassen; Vada Snider; Dave Hubler; LeRoy Troyer







The Associated Mennonite Biblical Seminary (AMBS) Library in Elkhart, Ind., is a pioneer in LEED green building design. Earning a LEED gold designation, the library is the first project on campus certified under the LEED rating system, the first LEED building in Elkhart or St. Joseph counties, and the first LEED-certified library in Indiana.

Completion of this high-performance, sustainable library is a testament to AMBS' commitment to environmental and fiscal stewardship. The overall design provides increased user comfort, lowers operating costs for HVAC and electrical systems, and uses materials that have less impact on natural resources. Energy efficiency and low environmental impact are achieved through the use of geothermal heating, maximized daylight, locally made materials, and furnishings with high recycled content and an emphasis on improved indoor air quality. The 37,500-square-foot library addition provides access to a specialized book collection, gallery space and bookstore.

AMBS has created a landmark that makes a statement about the value of scholarship and research. The library's visibility and design create a striking space for the seminary's unique, expansive collection, encouraging discovery and advancing knowledge in harmony with the environment.





San Antonio College, Academic Complex
San Antonio, Texas



WestEast Design Group, LLC

Design team: Christopher Kimm, AIA; Rodney Edwards, RA; Thomas "Tab" Baker, AIA, LEED AP	
Client: Alamo Colleges; John Strybos, Associate Vice Chancellor	
Area: 74,000 sq. ft.	**Total cost:** $12,962,000
Cost/square foot: $175.16	**Completion:** September 2008
Photographer: Chris Cooper	



This is a new 74,000-square-foot, three-story educational and administration facility for the San Antonio College campus. The building contains six academic departments: business, foreign languages, philosophy, continuing education, computer technology and continuing-education management offices.

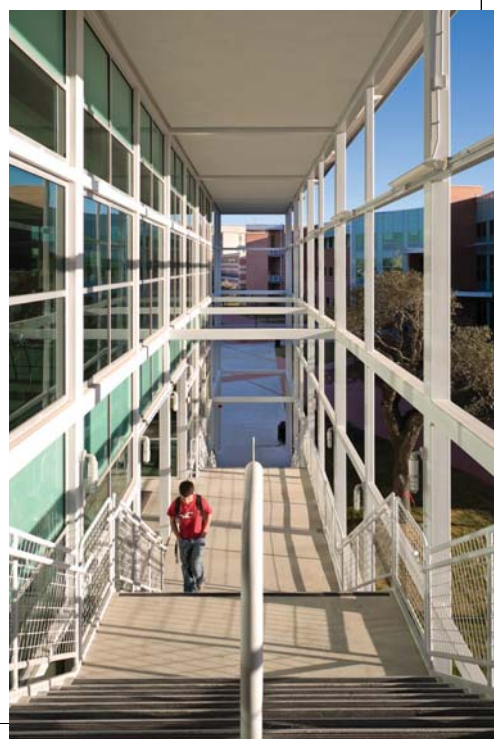
The project scope included conducting end-user coordination meetings, as well as presenting the design to various oversight committees for approval. The architect also coordinated all of the engineering disciplines, including civil, MEP, structure, geotechnical engineering and telecom data system design.

This building was designed to provide maximum flexibility in the configuration of offices and classrooms without compromising the utility infrastructure. In addition, the building cost was reduced through the introduction of simple structural and mechanical systems.

This project was completed on schedule and under budget. At the end of the project, more than $400,000 in value-engineered savings was returned to the college.

The project was designed for LEED silver certification. Other considerations: landscape architecture, ADA requirements, CM at risk delivery and value engineering.

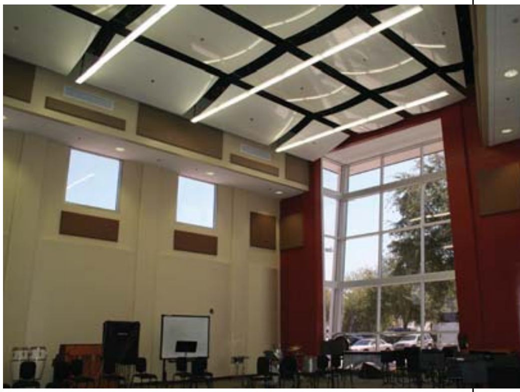




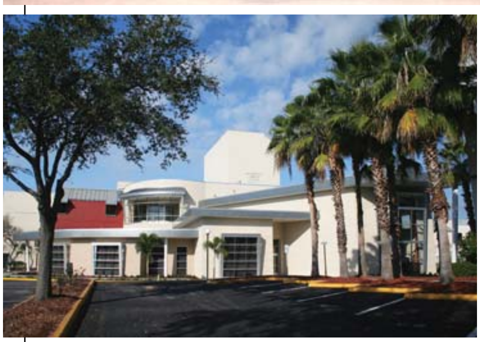
Hillsborough Community College, Performing Arts Building Renovation and Music Suite Addition · *Tampa, Florida*











Williamson Dacar Associates, Inc.

Design team:
Ted Williamson, AIA, PE, LEED AP, Principal-in-Charge; Gerry Richrath, RA, Project Architect; Robert Lorelli, Theatrical Consultant; Gary Siebein, AIA, Acoustical Consultant; Rob Anston, PE, MEP Engineer; James Mehltretter, PE, Structural Engineer; Keith Zayac, PE, RLA, LEED AP, Civil Engineer

Client:
Hillsborough Community College; Gwendolyn W. Stephenson, President

Capacity:
231 (classrooms); 261 (theater)

Area: 29,600 sq. ft. (renovation); 12,600 sq. ft. (new)	**Total cost:** $7.4 million
Cost/square foot: $175.10	**Completion:** December 2007

Hillsborough Community College's Performing Arts Building and Theater was constructed in the early 1970s and needed modernization. Poor sightlines and acoustics, and outdated lighting limited the use of the college's theater.

The renovation focused on updating and expanding the facility to meet today's standards. The theater was gutted to provide new sightlines and reshape the space for acoustics. The design included new theatrical lighting and sound systems in the theater.

The music department had outgrown its space in the existing building, and the new addition provided a rehearsal room, ensemble rooms, practice rooms and office/teaching studios. The spaces were designed to minimize sound transmissions between areas.

The large lobby on the first level provides a reception area for the art gallery show openings, as well as a prefunction area for theater performances.

The site is in historic Ybor City, and the addition is adjacent to historic structures. The addition was designed to complement the area by means of the building colors, materials and scale.

The new building provides students and faculty a state-of-the-art facility that enhances their learning experience and opportunities for a career in the arts.

SPECIALIZED FACILITIES

CITATION



"This natatorium is a wonderful addition to the existing school. A fantastic use of natural light and indirect light help make this a beautiful facility."
—2009 jury

OUTSTANDING SPECIALIZED FACILITIES



p. 154



p. 156

Visit SchoolDesigns.com.



p. 163



p. 158

CITATION

SPECIALIZED FACILITY

Central York School District, Natatorium
York, Pennsylvania





Schradergroup Architecture LLC

Design team: David L. Schrader, AIA, LEED AP, Lead Designer; David C. Mazzocco, LEED AP, Project Architect; Katherine Kurtak, Associate AIA, Project Designer	
Client: Central York School District; Michael Snell, Superintendent	
Area: 23,503 sq. ft.	**Total cost:** $4,736,000
Cost/square foot: $201.50	**Completion:** December 2008
Photographer: Matt Wargo Photography	

The Central York School District natatorium is a 20,000-square-foot facility that includes an eight-lane competition-class pool, as well as supporting amenities to accommodate local and regional swim and diving meets. The natatorium—an addition to the existing high school—also supports the district's high school physical-education curriculum and swimming instruction for the children in the primary schools.

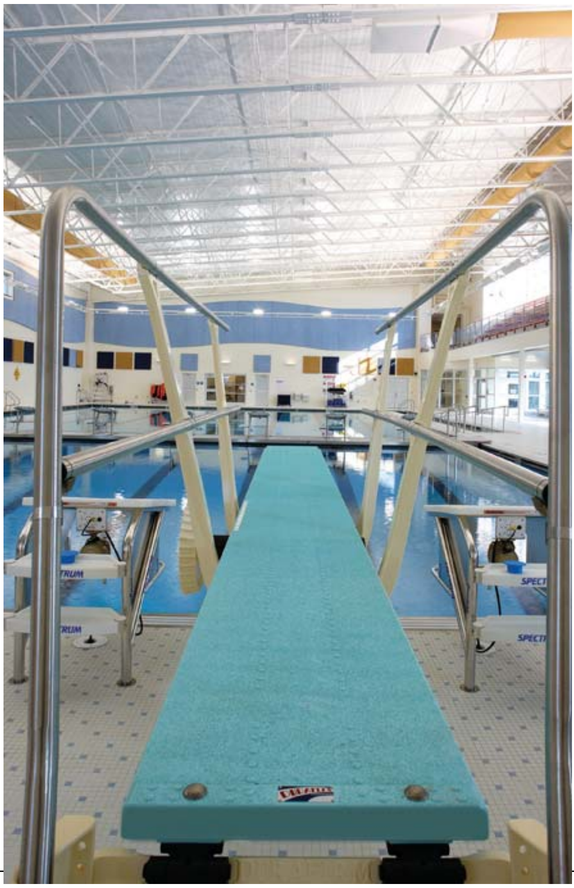
Seating 500 spectators on the mezzanine level and 250 competitors on the pool deck level, the facility has independent vehicle dropoff and entrance points that permit use by students and the community before and after school hours without compromising school security. Some important design features include strategically placed windows that maximize natural lighting; creative acoustics control; and indirect pool perimeter track lighting that prevents glare.

Also, the use of roof-mounted fabric ductwork prevents negative indoor air quality issues resulting from high humidity levels. The dehumidification system also helps to reduce energy costs by recovering and returning heat to the indoor environment.

"This natatorium is a wonderful addition to the existing school. A fantastic use of natural light and indirect light helps make this a beautiful facility."

—2009 jury



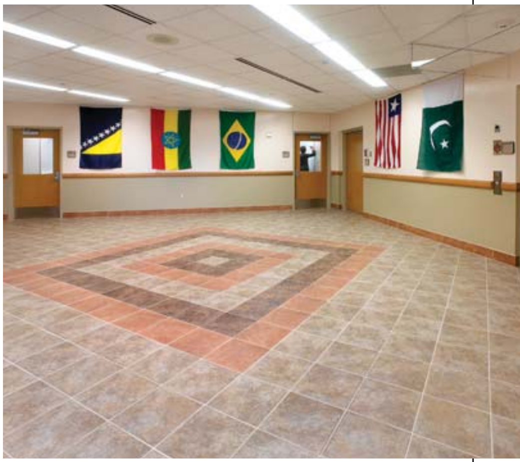


Osseo Adult Education Center

Brooklyn Center, Minnesota









The Osseo Adult Education Center promotes GED achievement through academic and English language instruction to adult learners in the northwestern suburban and surrounding areas of the Twin Cities. Working with Osseo Area Schools and the Adult Education Center staff, the architect designed the 25,500-square-foot facility to meet the needs of these adult learners. Planning is underway for an expansion that will provide county and non-profit human services as a "one-stop" service center.

Great care was given to creating clear and safe traffic patterns at the center. Adult learners arrive by various modes of transportation, and the center offers welcoming dropoff areas and entries for pedestrians, bus riders and drivers.

The use of daylight, warm colors, and the patterns on the floors and walls make the center feel welcoming. The facility houses 14 classrooms, a large community room, two computer labs, two shared conference rooms, a lunch room with partitioning capabilities, and a teacher-prep area and staff lounge. The center serves as home to 1,300 adult students and 40 Osseo Area Schools' staff.

ATS&R Planners/ Architects/Engineers

Associated firm: Clark Engineering

Design team:
Paul L. Snyder, AIA/CID/NCARB, Planner/ Principal-in-Charge/Project Manager;
Nancy LaBissoniere, AIA, Project Architect;
James T. Lange, PE, Mechanical Engineer;
Gaylen D. Melby, PE, Electrical Engineer;
Michelle L. Schintgen, RCDD/WD, Technology;
Graham Sones, ASLA, Site Development;
Kim Sorenson, Interior Design

Client:
Osseo Area Schools;
Susan Hintz, Superintendent

Capacity: 200 (day program); 250 (evening program)	**Space/student:** 142.5 sq. ft.
Area: 25,500 sq. ft.	**Total cost:** $3,942,946
Cost/square foot: $155	**Completion:** February 2006

Photographer:
Rick Peters, Inside/Out Studios

Delaware Chenango Madison Otsego Board of Cooperative Education Services, Additions and Alterations · *Norwich and Masonville, New York*





Bearsch Compeau Knudson Architects & Engineers PC

Associated firms: Klepper, Hahn & Hyatt; Appel Osborne; Fetech Inc.

Client:
Delaware Chenango Madison Otsego Board of Cooperative Education Services (DCMO BOCES); Alan Pole, Superintendent

Area: 381,571 sq. ft.	**Total cost:** $44 million
Cost/square foot: $115	**Completion:** September 2009

Photographers:
Van Zandbergen Photography; Dean Jordan Photography

DCMO BOCES has two campuses, Harrold and Chenango. Each campus offers vocational programs, general and special education to K-12 students. Additions and renovations have provided each campus with more classrooms, updated vocational spaces, and new gymnasiums and cafeterias.

The Harrold Campus is situated on a hillside with a commanding view of the surrounding mountains. There are two original structures: one contains vocational labs, and another houses classrooms and office spaces. The buildings are separated by 350 feet horizontally and 30 feet vertically.

The design of the addition at Harrold Campus is a response to the challenges of a steeply sloping, geographically influential site and the programmatic requirement that an addition connect two existing buildings. Brick and precast panel-clad “bars” contain classrooms and vocational spaces. The gymnasium and cafeteria are sculptural elements serving as the core between the bars, and are clad in gold and green metal panels. The cafeteria uses large amounts of glazing to take advantage of the surrounding mountainside views.

The Chenango Campus consists of a one-story building that sits at the midpoint of a sloping site. The design included a renovation of the original building and two additions, one to the north end containing the gymnasium and cafeteria, and a two-story addition to the south. This addition is a two-story, double-loaded classroom wing that faces the street and presents an updated appearance, yet maintains a tie to the original building. Because of the sloping site, the upper level adjoins the main level of the existing building, and the lower level sits downhill.

The existing entrance was a non-descript alcove at the front of the building. The site was reconfigured to integrate the new and existing components, creating a more prominent main arrival point.







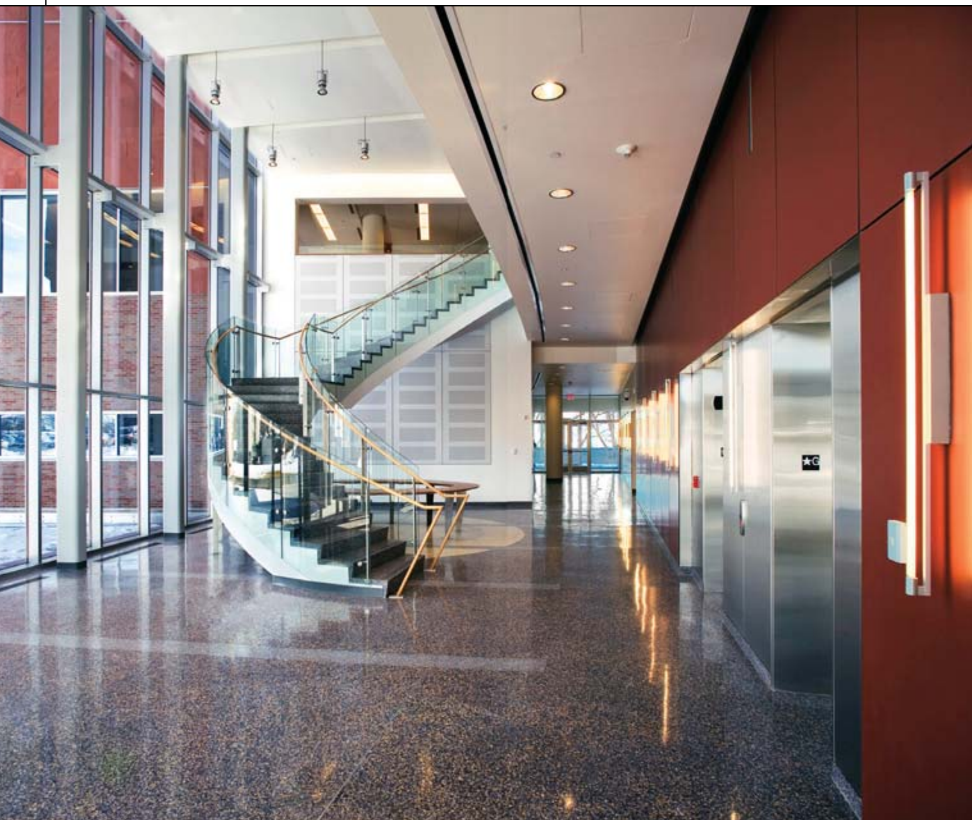








University of Kansas Medical Center, Kansas Life Sciences Innovation Center · *Kansas City, Kansas*



Cannon Design	
Associated firm: Treanor Architects	
Client: University of Kansas Medical Center; Warren Corman, University Architect and Assistant to the Chancellor	
Area: 202,494 sq. ft.	**Total cost:** $47,229,000
Cost/square foot: $233	**Completion:** December 2006
Photographers: Michael Spillers Photography; Robert Pettus (exterior)	

The Kansas Life Sciences Innovation Center achieves new heights in life-sciences research for greater Kansas City. The five-story facility houses groundbreaking research in liver disease, reproductive sciences, neuroscience, diabetes and proteomics. The facility boosts the region's life sciences initiatives, helping medical patients worldwide.

Perched on a steep, rocky plateau along the medical center's northern edge, the center is an architectural showpiece and gateway to the campus core, welcoming visitors with a reflecting pool at its entrance. Designed for future expansion, the building connects the campus with a conference center, public amenities, informal interaction spaces, and plentiful daylighting and views.







The collaborative, flexible environment has helped the university attract leading physician-scientists nationwide. Efficient, modular laboratories enable flexible assignments of research teams, and "neighborhoods" of research offices, breakout spaces and lab suites create dynamic environments for multidisciplinary teaching and focused research centers.

Core support spaces and shared equipment areas are situated centrally, encouraging team science and avoiding costly duplication. Clinical translational research is consolidated at the ground floor for discreet public access.

Wright State University, Boonshoft School of Medicine
Dayton, Ohio



Champlin/Haupt Architects

Design team:
Michael J. Battoclette, AIA; Joan Tepe Wurtenberger, AIA, LEED AP; Mike Koch, AIA, LEED AP; Jason East; Krutarth Jain, LEED AP; Melanie Hesse; Marianne Bir, PE; Heapy Engineering, MEP Engineer; THP Limited, Structural Engineer; Vivian Llambi & Associates, Landscape Architecture; LJB Inc. Civil Engineer

Client:
Wright State University; Howard Part, Dean, College of Medicine

Area:	Total cost:
73,000 sq. ft. (both phases)	$7,950,000
Cost/square foot:	**Completion:**
$108.90	July 2008

Photographers:
Will Jones; Dave Brown



Boonshoft School of Medicine had a vision and a mission to transform the existing 1981 facility so that it would reflect the institution's ideals as a college and became an integral part of a growing modern university. The 18,000-square-foot expansion introduces modernity, discretion and compassion into an academic lab setting. The new space features a new entry/lobby; wireless 160-seat tiered lecture room; three gross-anatomy labs; a fully functioning morgue; and faculty, staff and support offices. The exterior image and dramatic entry is a significant feature for the school and campus as it sits at a main gateway to the university.

The extensive 55,000-square-foot renovation includes central student spaces for gathering and studying, new computer classrooms and departmental office space. The design language complements elements found in the new space, including maple wood paneling, striking wood ceiling panels, contrasting ceiling planes and open glass meeting areas.

Space allocations, materials, lighting, textures, colors, patterns, furniture, art and environmental graphics are blended in an intelligent and meaningful way to create a differentiated environment that adds value. Spaces were planned and created to support team-based and independent learning initiatives, day-to-day functions of students and staff, and social collaboration.

Technology plays a key role in promoting advanced teaching and learning. Wireless routing and transfer enable information to flow seamlessly through the facility so that it can be accessed by students or faculty anywhere within the building.





Old Dominion University, Powhatan Sports Complex
Norfolk, Virginia











The Powhatan Sports Complex was designed to house practice quarters and support spaces for the Old Dominion University's new Division 1-AA football team. The complex also is home to the university's women's field hockey and lacrosse programs.

The 58,000-square-foot facility is situated on a nine-acre site at the edge of the campus, at the corner of a significant intersection. The main building is an L-shaped structure with an entrance positioned at the corner to provide visibility and proximity to pedestrian traffic arriving from campus.

It is adjacent to two football practice fields and a field hockey and lacrosse field with grandstand seating for 1,500. This field includes concession/restroom facilities and a press box, and can be observed from a second-story terrace that extends along almost the entire length of the building.

The building materials of brick, cast stone, composite metal panels, and glass with solar screens closely mirror the materials and color of the existing campus.

Clark Nexsen Architecture & Engineering

Design team:
Robert Bain, AIA, LEED AP, Principal-in-Charge; Don Hirtz, AIA, LEED AP, Scott McPeek, Brian Gurczynski, Architecture; Melodi Terhune, CID, ASID, LEED AP, Interiors; Sterling Hoy, PE, Jim Jenkins, Structural; Mark Elder, PE, LEED AP, Alicia Udovich, EIT, LEED AP, Mechanical; Jimmy Bruff, Plumbing; John Wilson, RCDD, Electrical; Edgar Castillo, PE, Civil

Client:
Old Dominion University; Dale Feltes, Director of Design and Construction

Area:
30,600 sq. ft.

Total cost:
$7 million

Cost/square foot:
$228.76

Completion:
August 2008

Photographer:
John Wadsworth

Tidewater Community College, Regional Automotive Technology Center · *Chesapeake, Virginia*



Clark Nexsen Architecture & Engineering

Design team:
David A. Keith, AIA, LEED AP, Design Architect; Gary W. Bright, AIA, Project Architect; Sterling H. Hoy, PE, Structural Engineer; Edgar M. Castillo, PE, Civil Engineer; Mark A. Elder, PE, LEED AP, Mechanical/Plumbing; Fred J. Asher, Electrical Engineer; Ginger M. Pinkard, CID, IIDA, Interior Designer; J. Thomas Dalton, ASLA, CLA, Landscape Architect; Chris Born, PE, LEED AP, Fire Protection

Client:
Virginia Community College System; Walter "Bud" Brueggeman, Program Head, Automotive and Diesel Technology

Area:
30,600 sq. ft.

Total cost:
$7 million

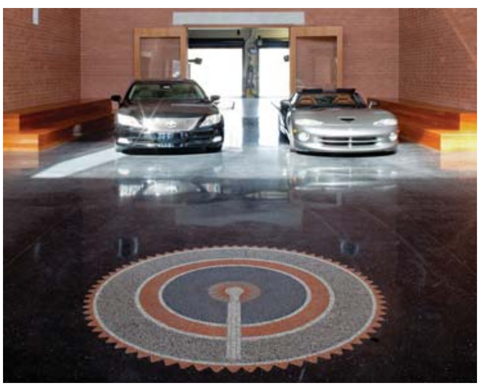
Cost/square foot:
$228.76

Completion:
August 2008

Photographer:
John Wadsworth









Designed to reflect the high-technology facilities that it houses, this state-of-the-art facility is a 30,600-square-foot, single-story building with working garage bays, classrooms, faculty offices, conference facilities and a showroom-style car display area. Each bay is adjacent to a classroom to facilitate the automotive teaching methods. Interactive audio and video technology abounds, enabling classrooms to experience hands-on demonstrations of auto-repair methods, as well as provide visibility to every student when working in close confines.

Because automobiles play such an important role in the function of the building, there also had to be some showroom-like qualities about the building. The outdoor display areas and an all-glass entry with the spacious lobby enable the display of program-sponsored vehicles and give the visitor an immediate interaction with automobiles. These elements were designed to give the building a sense of pride about its function without cluttering up the overall appearance.

The Tidewater Community College Regional Automotive Center (RATC) will host numerous national automobile technology training conferences throughout the year.

Penta Career Center
Perrysburg, Ohio



Collaborative - TMP

Design team:
John Castellana, FAIA, Frank Beans, Partners-in-Charge; James Seaman, AIA, LEED AP; Drew Pennington, ASID; Stefanie Francisco, IIDA, LEED AP; Rudolph Libbe, Construction Management; LKL Engineers, Structural Engineer; JDRM Engineering, Inc., Electrical/Mechanical Engineer; Mannik & Smith, Civil Engineer; BAi, Inc., Acoustical Consultant; Innovate Tech Group, Technology Consultant; E.F. Whitney, Food-Service Consultant

Client:
Penta Joint Vocational School District; Fred Susor, Chief Administrator

Capacity: 2,000	**Space/Student:** 261 sq. ft.
Total area: 521,639 sq. ft.	**Total cost:** $91,022,596
Cost/square foot: $175	**Completion:** September 2008

Photographer:
Christopher Lark

Penta Career Center serves and educates 2,000 students from five counties. The design features a "center core" area surrounded by three wings, with flexible classrooms and laboratories that can adapt easily to evolving career-technical programs. The three-story, glass-walled core is the facility's focal point, and includes a student commons area, welcome center, 600-seat auditorium, culinary-arts program and media center.

Sixteen districts feed Penta, so to create a sense of unity as well as opportunities for collaboration, the building includes social zones and a central commons area. In response to the long distances many students travel to attend, Penta—unlike most career tech facilities—offers both academic and career-related training.

The exterior envelope incorporates precast concrete insulated panels with inset brick and modular metal panels, recalling a "manufacturing process system." Structural and mechanical systems are exposed in lab areas, providing a tangible teaching tool for construction trade instructors. Cooling is achieved in part through a unique thermal energy-storage ice-bank system.







Mary Meredith K-12 School
Tucson, Arizona











Emc2 Group Architects Planners, PC

Design team:
Ron Essley, Richard Clutter, Dominic Monacchio

Client:
Tucson Unified School District #1;
Terri L. Polan, Principal

Capacity:
100

Space/student:
150 sq. ft.

Area:
15,000 sq. ft.

Total cost:
$3.7 million

Cost/square foot:
$246.67

Completion:
September 2008

Photographer:
Ron Essley

This project is a replacement facility for the Mary Meredith Exceptional School Campus. Project requirements included phasing to enable construction while the school remained operational; integration of the existing multi-purpose building; demolition of existing portable classrooms; and site improvements such as new staff parking, playgrounds, and fire and bus dropoff lanes. The site is adjacent to an elementary school and district support center, where space on the site was limited and posed circulation challenges.

Mary Meredith K-12 serves special-needs children who have histories of destructive behavior. For this reason, the design features materials that are less prone to vandalism and more appropriate for heavy wear. The single-building school includes a library, eight classrooms, computer lab and vocational/life-skills learning area.

The internal courtyard serves a security function as well as a play and student activity space. It provides a safe environment for students and staff because it can be monitored and enhances occupant security with a single access/egress area.

Administrative offices are clustered at both exits to provide additional monitoring and provide separation between K-6 classrooms and upper grades.

Wayne State University School of Medicine, Family Medicine Residency Practice at Crittenton Hospital · *Rochester, Michigan*



French Associates, Inc.

Design team:	Paul A. Corneliussen, Principal-in-Charge; Keti Mitevska, Project Manager; Fatima Beacham, Interior Designer
Client:	Wayne State University/Crittenton Hospital; Tsveti Markova, Residency Program Director
Area:	15,535 sq. ft.
Total cost:	$1,512,957
Cost/square foot:	$97.39
Completion:	October 2008
Photographer:	Steve Maylone/Maylone Photography

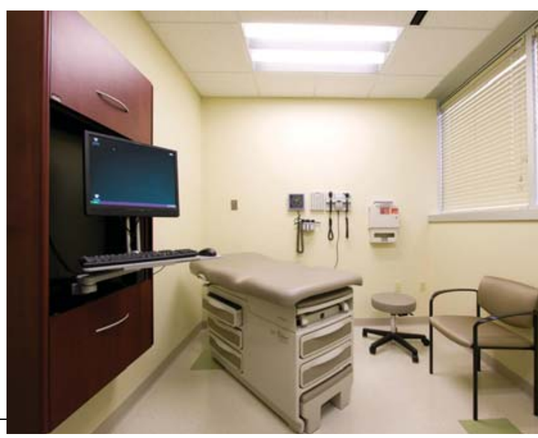
Crittenton Hospital's Medical Office building complex was completed in two phases. The first phase was finished in 1994, and the second phase opened in 2008.

The second phase houses the Wayne State University Family Medicine Practice, which leases the entire 15,000-square-foot second floor and hosts the School of Medicine's Family Practice residency program. This specialized suite, designed specifically for this practice, has 24 general exam rooms, two pediatric exam rooms and two procedure rooms.

This is a new program for Wayne State University; the medical staff is composed almost entirely of medical school interns. Instructors take rotations and teach classes on site, as well. Ancillary spaces in the suite include a staff lounge, instructional classroom, support staff areas and individual offices.









Mountain View College (Dallas County Community College District), Science & Allied Health Building · *Dallas, Texas*



Gensler

Design team: David Calkins, AIA, LEED AP; Debra Sappington, AIA, LEED AP; C.K. Pang, AIA, LEED AP; Alan Colyer, ASLA	
Client: Dallas County Community College District; Felix A. Zamora, President	
Area: 39,500 sq. ft.	**Total cost:** $9.4 million
Cost/square foot: $237.97	**Completion:** January 2009
Photographer: Chad Davis	

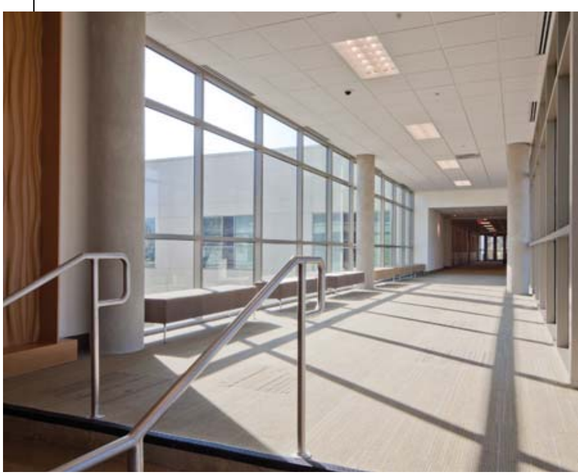
The new two-story Science & Allied Health Building at Mountain View College connects new science and allied-health facilities to existing classrooms via a glass-faced bridge that functions as student interaction and study space.

The new building houses biology, microbiology and chemistry laboratories, and support space; the nursing program; computer labs; and general-use smart classrooms. The new structure, the bridge and an existing greenhouse frame an outdoor garden classroom used for general biology education.

The architect also designed minor renovations to the existing lobby and science classrooms, and updated the existing campus infrastructure to allow for five new large construction projects across campus.











Cambridge War Memorial Athletic Center

Cambridge, Massachusetts









HMFH Architects, Inc.

Design team: George Metzger, AIA, Principal; Vassilios Valaes, AIA, LEED AP, Project Manager	
Client: Cambridge Public Schools/City of Cambridge; James Maloney, Chief Operating Officer	
Capacity: 1,900 (student body)	**Area:** 73,000 sq. ft.
Total cost: $25,841,270	**Cost/square foot:** $354
Completion: August 2008	**Photographer:** Anton Grassl

The Cambridge War Memorial Athletic Center is a 73,000-square-foot, two-story facility situated on the campus of the city's comprehensive public high school. With its three pools, gymnasium, fieldhouse and multipurpose rooms, War Memorial serves 1,900 students daily and functions as Cambridge's central community athletic facility.

The renovations helped the city better serve its various user populations by creating separate spaces for students, athletic teams and community users, with easy circulation between spaces used by each group.

The student entrance opens into bright, spacious corridors (lined with classrooms and administrative space), enabling supervision of students as they move toward team locker rooms and physical-education spaces.

The community entrance brings users directly past the reception desk and offers simplified navigation toward frequently used facilities. Distinct administrative spaces have been created for team coaches, physical education and the city's recreation department.

Renovations also have improved the center's appearance and sustainability. Vibrant tile work and wave-patterned terrazzo flooring add both visual appeal and durability to the center, which has applied for LEED certification.

Texas Tech University Health Sciences Center, Amarillo Research Building · *Amarillo, Texas*





Lavin Architects

Design team: SmithGroup, Laboratory Design; OJD Engineering, Civil Engineer; Helms Engineering, Structural Engineer; Chambers Engineering, Mechanical Engineer; BSA Consulting Engineers, Electrical Engineer; Turner LandArchitecture, Landscape Architect	
Client: Texas Tech University System; Mike Ellicott, Vice Chancellor	
Area: 48,000 sq. ft.	**Total cost:** $18 million
Cost/square foot: $375	**Completion:** February 2009
Photographer: Sheila Sims	

The campus of Texas Tech University Health Sciences Center in Amarillo consists of a School of Medicine, a School of Allied Health and a School of Pharmacy. The growth of research, particularly in the School of Pharmacy, led to the campus' most recent addition, the Amarillo Research Building. The three-story, 48,000-square-foot building is used by 13 to 15 scientific teams for pharmaceutical and medical research.

The building's exterior design and materials were selected to complement other campus buildings. The interior plan includes a vivarium, open and closed laboratories, and open and closed offices for investigators and their staffs. About 10,000 square feet of basement was left unfinished to accommodate future research needs.

More than 16,000 square feet of space is devoted to laboratories. Open labs are designed to accommodate and encourage interactive, interdisciplinary approaches to research and to make the space more adaptable for future use. Closed labs are designed for specific kinds of research and equipment.

The Amarillo Research Building was completed in February 2009.







State University College at Potsdam, Becky's Place at Pratt Commons · *Potsdam, New York*









Mach Architecture + Engineering, PC

Associated firm: Pathfinder Engineers, LLP; Roth Consulting Group

Design team:
Douglas Schaefer, AIA; Gregory Tomsic, AIA, LLS, LEED AP; Brian Kelley, AIA; Aaron Mach; James Smokowski; Darlene Klotzbach, ASID, NCIDQ, LEED AP; Alex Strasenburgh, PE; David Klock, PE, LEED AP

Client:
State University Construction Fund and SUNY Potsdam; John F. Schwaller, President

Capacity:	Area:	Total cost:
250	9,500 sq. ft.	$3.2 million
Cost/square foot:	**Completion:**	
$337	August 2008	

Photographer:
Jennifer McCluskey/McCluskey Photography

The college identified a need to upgrade an existing dining area that was outdated and underutilized, as well as a desire to address the lack of amenities for communing students on campus. As the design evolved, it became evident that Pratt Commons could play a more significant role than planned originally. Situated adjacent to the primary connection between the commuter entrance and the academic quad, it became the main entry to the campus.

Pratt Commons is situated between a 1970s, eight-story administration building and a circa 1940, three-story classroom building. The use of brick, stone and glass along with its massing enables the addition to Pratt Commons to bridge the varied aesthetics while maintaining the sense of place.

The interior features a food-service facility focused on a stone-clad hearth. The natural materials (stone, ceramic tile, wood) along with carpet create a warm and welcoming environment. A variety of seating options is provided along the open walkway, including areas of soft seating centered on a stone fireplace.

Lake Highland Preparatory School, Harriett Coleman Center for the Arts · *Orlando, Florida*



Rogers, Lovelock, and Fritz, Inc. (RLF)

Design team:
Robert L. Bendixen, RA, LEED AP, Project Manager; Steve M. Langston, AIA, LEED AP, Director of Design; Steve R. Clark, Project Designer; Ken Shapiro, Project Architect

Client:
Lake Highland Preparatory School; Warren Hudson, President

Capacity:
776 theater-style seats

Area:	Total cost:
29,200 sq. ft.	$13 million
Cost/square foot:	**Completion:**
$445	July 2008

Photographer:
Raymond Martinot

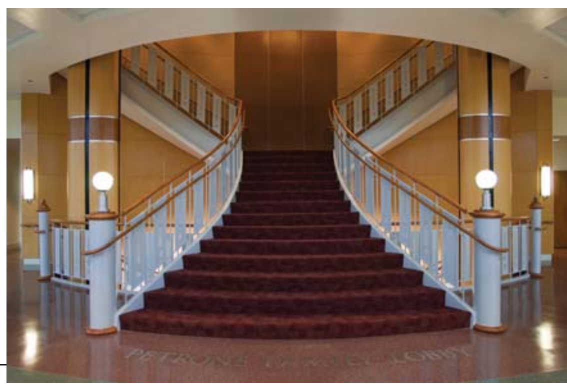
The new theater serves as a centerpiece for developing the performing-arts program for this traditional K-12 preparatory school. It is used for various functions, from school assemblies, graduations, lectures and recitals to theatrical productions and concerts, by students and touring professional Broadway productions.

The design team was charged with creating a cutting-edge performing-arts facility that reflected the school's excellence and vision for its students while reinforcing the campus as a "sense of place" and its connection to the adjacent lake and community. The 29,200-square-foot facility boasts a 776-seat theater, stage, dressing rooms, costume shop, orchestra pit, main lobby, clock tower, various support spaces and a separate black-box theater.

The exterior of the theater was designed to fit contextually with the traditional architectural vernacular of the existing campus. The exterior was kept simple with brick veneer and precast concrete panels, and a standing-seam metal roof. The detailing of the exterior components (such as the brick insets, entry gate, columns reveal and the clock tower itself) reflects eclectic design elements, which blend with the rich traditional style of the existing campus.







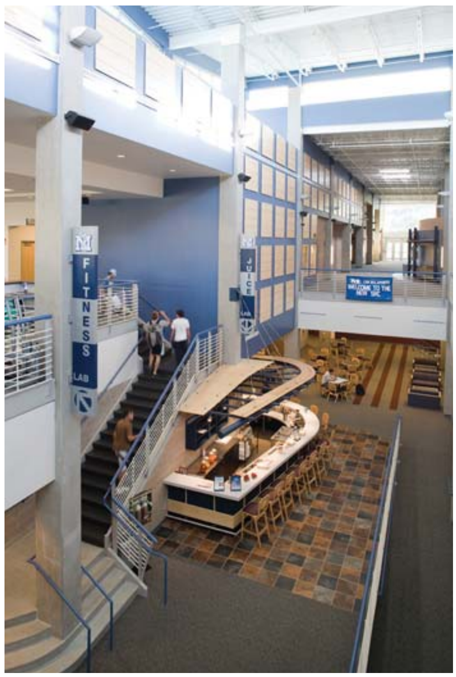


Colorado School of Mines, Student Recreation Center and Lockridge Arena · *Golden, Colorado*









The new Student Recreation Center at the Colorado School of Mines accommodates a 3,845 (and growing), co-ed student population. The 108,000-square-foot recreation center includes a versatile competition/practice gymnasium, a separate recreation gymnasium, multiple fitness areas, an extensive climbing wall, an indoor competition/recreation pool, student and team locker rooms, offices, outdoor recreation program headquarters, multipurpose meeting rooms and casual lounge spaces distributed throughout the facility.

The Recreation Center was the first project called for in the campus master plan. The building itself is organized around a central circulation axis that serves as a connector between the student housing area and the central campus. The east campus side of the axis connects to a new landscaped pedestrian way that runs perpendicular to the front of the building.

The east entrance of the new recreation center works with the existing student center to create a major hub. Walkways converge at this student activity point and include a cul-de-sac that will be a major dropoff point. The building's design concept is based on a strong circulation spine with a climbing wall tower as an anchor on the east side of the building, the side that faces the main campus. The tower provides a dynamic entry lobby for the center.

The facility is divided into two components: the public circulation and arena access area, and the controlled recreation center. The concept was to provide physical separation but visual connection between these two functions. The spine houses a large atrium space that opens up the center of the facility and introduces daylight to many of the recreation areas. The fitness space, juice bar, arena lobby, recreation lobby and climbing wall all open to the atrium.

Daylight modeling was done on the entire building. Skylights and clerestories were used throughout the building in conjunction with dimming controllers such that most spaces require very little artificial lighting. Central campus steam systems provide energy-efficient HVAC.

The inclusion of the 2,500-seat Lockridge Arena was made late in the design process and created budget challenges. The design of the building emphasized economic construction details and materials. A creative donation program developed by the college helped fund many of the components in the facility. The Arena is named for the largest donor, John and Erica Lockridge.

Wood accent elements are used at focal points such as the entry desk, concession stand and juice bar. The curved expression of the exterior is repeated in the forms at the concession stand, entry desk and in the wood canopy over the juice bar. The gymnasiums and pool structure have an exposed, light-painted steel structure to augment the indirect lighting and daylight.

Sink Combs Dethlefs

Client:
Colorado School of Mines; Brandon Leimbach, Associate Athletic Director

Area:	Total cost:	Cost/square foot:	Completion:
108,880 sq. ft.	$21,168,000	$195	August 2007

Photographer:
Fred Coester/Coester Architectural Photography

Eastern Washington University, Student Recreation Center
Cheney, Washington





Sink Combs Dethlefs

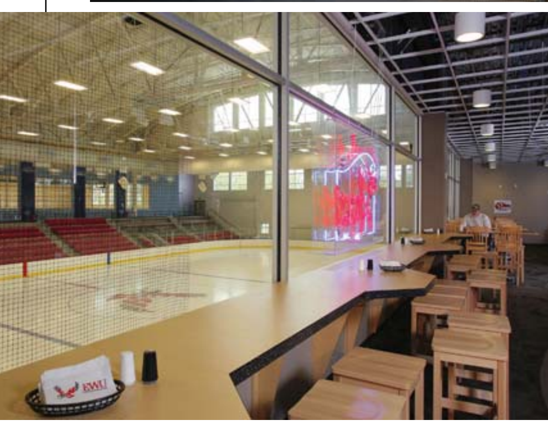
Client: Eastern Washington University; Troy Bester, Manager, Construction and Planning	
Capacity: 796	**Area:** 117,699 sq. ft.
Total cost: $20,487,000	**Cost/square foot:** $174
Completion: April 2008	**Photographer:** Explosive Illusions, Inc.

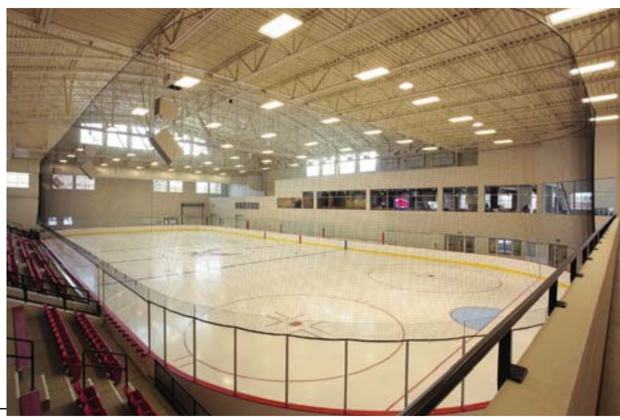
Designed for use by students, faculty, staff and the community, this multipurpose Student Recreation Center for Eastern Washington University (EWU) serves as the premier hub for student life and community health and wellness activities.

The design focuses on the community by providing varying types of social and assembly spaces. The design is oriented heavily toward opportunities for direct sightlines between activity areas. As one walks into the elevated main entry, immediate views of the ice rink, sports pub and climbing wall are available. Beyond the ice rink, one also can see into the 3-v-3 gymnasium and the two-level fitness center.

The building's form combines dynamic, shallow arched roof forms and simple, flat-roofed forms, emphasizing entries, primary spaces and daylighting elements. Translucent glass wall systems are associated with the arched roofs; more traditional punched window systems are associated with the masonry walls of the flat-roofed elements. Carefully designed to take advantage of both interior and exterior relationships, the center fulfills the needs of three critical components of the EWU experience: recreation and wellness, academics and community.

The heart of the recreation center is a multiuse ice rink. The arena includes 750 fixed seats, plus an overlooking sports pub. For large gatherings, the ice rink can be converted to a small multipurpose arena, accommodating concerts, commencements, special events, tournaments and consumer shows targeted to the college audience.





Outdoors, the grand entry stair climbs, parallel to tiered seating facing the pedestrian mall, to the elevated entry plaza that provides additional exterior pub seating. Through its interactive design, the building has become emblematic of the campus as a diverse but thoroughly connected community.

The building has been certified LEED gold.

Eastern Shore Community College, Business Development and Workforce Training Center · *Melfa, Virginia*







Shriver and Holland Associates

Design team: Henry V. Shriver, AIA, Principal-in-Charge; Raphael D. Lister, AIA, LEED AP, Project Manager/Project Architect	
Client: Virginia Community College System; William Price, Capital Outlay Program Manager	
Area: 21,684 sq. ft.	**Total cost:** $6,186,155
Cost/square foot: $285.29	**Completion:** February 2009

Eastern Shore Community College, situated near Melfa, on Virginia's Eastern Shore, offers associate degree programs, as well as continuing education in a variety of career-oriented subject matter. With the college and community's goals in mind, the architect designed the Business Development and Workforce Training Center, which represents Phase I of the new campus master plan, and includes an expanded campus infrastructure and perimeter road system.

The building addresses an increased demand for courses in technology, health services and new industry skills, as well as the need for a venue to accommodate community meetings, assemblies and social events.

The new site development facilitates convenient access and parking for staff and students, and creates a more unified campus for this public community college. Now a campus beacon along U.S. Route 13, the facility provides flexible classrooms and assembly spaces, computer training labs, conference rooms, faculty offices and an industrial training lab. A large multifunction assembly hall can accommodate technical equipment instruction, and catered college and community events.



Indiana University South Bend, River Crossing Campus Apartments, Community Building · *South Bend, Indiana*





The Troyer Group

Design team: Sam Jones, AIA, Project Manager; Fredda Zeiter, AIA, Project Architect; Bill Barnard, AIA, LEED AP, LEED Project Administrator; Sean Frederick, AIA, LEED AP, Project Architect; Andrew Roche, AIA, LEED AP, Project Architect; Kristine Bergman, LEED AP, Design Associate; Andrew Avara, LEED AP, Design Associate		
Client: Indiana University of South Bend; Robert Meadows, AIA, IU Architect		
Area: 7,400 sq. ft.	**Total cost:** $1 million	**Cost/square foot:** $130
Completion: August 2008	**Photographer:** Dave Hubler	

Indiana University South Bend traditionally has been a commuter campus. Twenty-one years ago, the university had a vision to develop student housing in an effort to develop the campus into a "total" university package and a community entity. After an integrated design effort, the vision has become reality with the River Crossing Campus Apartments.

At the heart of the campus apartments lies the community building, a 7,400-square-foot building serving the student body and campus community with a safe, clean, positive interaction space.

Every student from the apartments has access to the services the community building has to offer, including mail shipping/receiving; laundry facility; exercise room; two classrooms/study rooms; a computer lounge; a kitchenette with bar seating; and a large gathering room with a fireplace, large flatscreen TV and lounge seating.

Among the campus priorities is "reflect and expand a global perspective." IUSB has wanted to reduce the environmental impact of the campus construction by designing the community building to be sustainable. It has sought third-party verification through the LEED certification process.

Sustainable features of the community building include native/adaptive landscapes; rainwater harvesting through bio swales and rain gardens; minimized building footprint; geothermal loop system; higher solar-reflective material colors for the building's exterior; high-performance thermal wall properties; daylighted interiors; naturally ventilated windows; low-VOC finishes; water-reducing fixtures; a high-efficiency HVAC system; 17 percent of materials were recycled materials (based on cost); 20 percent of materials were regionally harvested, extracted, and manufactured within a 500-mile radius (based on cost); and 90 percent of all construction waste was diverted from landfills.





RENOVATION/MODERNIZATION

CITATIONS

BLRB Architects, PS
Garfield High School, Renovation/Addition
Seattle, Washington ....p. 174-175

"Extremely functional adaptive reuse that is sustainable and integrated well into the community."

—2009 jury



Fanning Howey
Phelps Architecture, Construction and Engineering High School
Washington, D.C. ....p. 176

"Unique design utilizing building infrastructure as a training tool. The design embraces new technology and provides an open, inspiring learning environment."

—2009 jury



Visit SchoolDesigns.com.

OUTSTANDING RENOVATION/MODERNIZATION

Garfield High School, Renovation/Addition

Seattle, Washington



BLRB Architects, PS

Design team:
Tom Bates, FAIA, Principal Architect; Mike Reynolds, AIA, Project Manager; Ron Tjerandsen, AIA, Project Architect, Historic Building; David Pool, AIA, Project Architect, PEPAC Building; Kurt Cross, AIA, Construction Administration

Client:
Seattle Public Schools; Maria Goodloe-Johnson, Superintendent

Capacity:	Space/student:	Area:
1,600	152 sq. ft.	243,000 sq. ft. (usable)
Total cost:	**Cost/square foot:**	**Completion:**
$87.5 million	$360	September 2008

Photographers:
Benjamin Benschneider Photography; Michael Burns

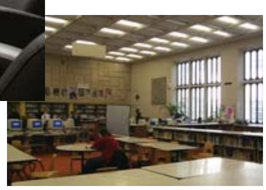
Built in 1923, Garfield High School presented a unique design challenge: maintaining the historical, architectural and cultural legacy of a beloved community icon while transforming an obsolete building into state-of-the-art educational space. The school, with an alumni list that includes world-renowned musicians, artists and athletes, had long ago outgrown its usable space. Several piecemeal remodels had left the school disjointed and disconnected.

The architect facilitated an extremely effective community-based planning process involving multiple stakeholders—community leaders, parents, students, teachers, administrators and alumni—to shape the project's design. A critical by-product of those meetings was the determination of which building features could and should be restored and which should be removed or reconfigured. The final project goals called for a unification of the campus, graceful integration of old and new construction, flexibility of use and future adaptability, accommodation for community participation and enhancement of student achievement—all while preserving landmark features.

The design included a rehabilitation and reorganization of the three-story, 170,800-square-foot structure into four distinct "personalized learning environments," providing flexibility for multiple instructional models from grade-level teaming to departmental organization or inter-departmental clustering. Advanced educational technology, including wireless, voice enhancement, digital projectors and interactive whiteboards are integrated into all learning spaces. The addition of an 83,700-square-foot annex provided space for a sophisticated 600-seat performance center, an 1,800-seat competition gymnasium, and a teen resource center operated by Seattle Parks.

This project was designed to meet the State of Washington Sustainable Schools Protocol (WSSP) or LEED silver equivalent. The building envelope was upgraded, and mechanical systems were replaced. Operable windows, natural lighting, low-VOC materials and a new HVAC system dramatically improved indoor environmental quality. Original architectural features were repurposed throughout. Drought-resistant and native landscaping negated the need for permanent irrigation, aiding in stormwater management and safeguarding water supplies.





Before



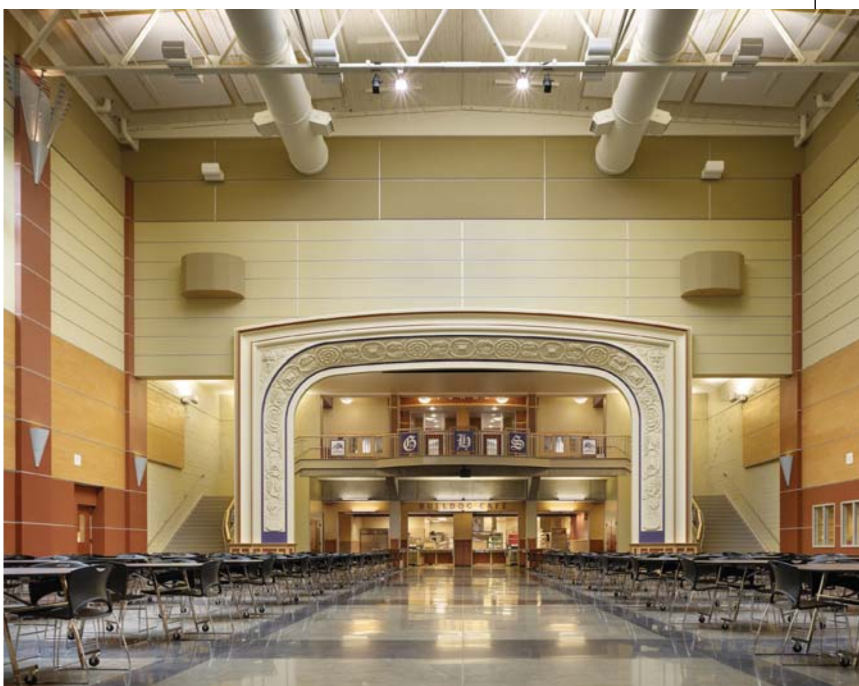




"An extremely functional adaptive reuse that is sustainable and integrated well into the community."

—2009 jury











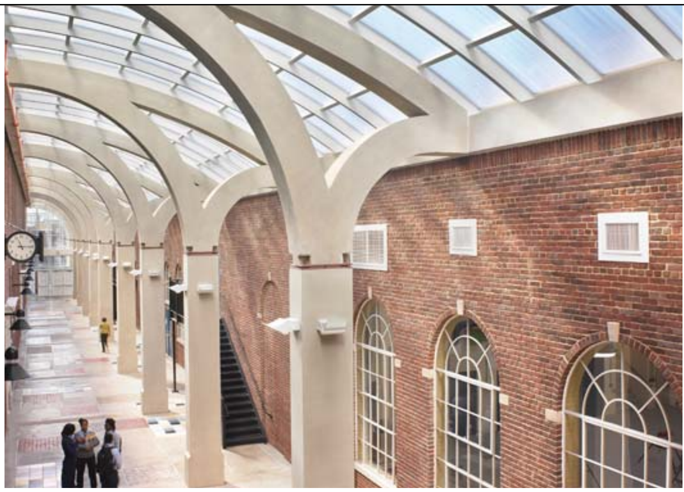
Before

CITATION

RENOVATION/MODERNIZATION

Phelps Architecture, Construction and Engineering High School
Washington, D.C.







Fanning Howey

Associated firm: Bryant Mitchell

Design team: Edwin R. Schmidt, AIA; Katie Stone; Michael K. Schipp, AIA, LEED AP	
Client: District of Columbia Public Schools; Michelle Rhee, Chancellor	
Capacity: 622	**Space/student:** 226.67 sq. ft.
Area: 17,736 sq. ft. (new); 123,256 sq. ft. (renovation)	
Total cost: $41,083,300 (includes total building construction and fixed equipment)	
Cost/square foot: $293.26	**Completion:** August 2008
Photographer: Maguire Photographics	

The restoration of Phelps High School turned an abandoned building into a high-tech educational environment for the architecture, construction and engineering trades. The school offers a project-based curriculum designed in partnership with local and national professional organizations.

A soaring two-story commons connects the original 1930s structure with the later additions. Classrooms include high-tech drafting labs, and heavy-equipment and crane simulators. Wireless connectivity and varied breakout spaces encourage collaboration among students.

The building serves as a valuable teaching tool. The commons acts as a showcase for construction displays, including welding, drywall and masonry. Color-coded building systems and exposed structural elements offer examples of best practices in building construction and design.

The modernization was completed in only 16 months. Restoration efforts preserved historic brick, woodwork and terrazzo floors while integrating LEED for Schools strategies. Helical wind turbines, photovoltaic solar arrays and a geothermal cold-water loop provide almost 100 percent of the school's energy needs.

In its first year of operation, Phelps has attracted students from across the district and neighboring states, and has restored the rich heritage of one of Washington, D.C.'s most iconic schools.

"Unique design utilizing building infrastructure as a training tool. The design embraces new technology and provides an open, inspiring learning environment."

—2009 jury



Before



Liberty Junior High School, Auditorium Renovations

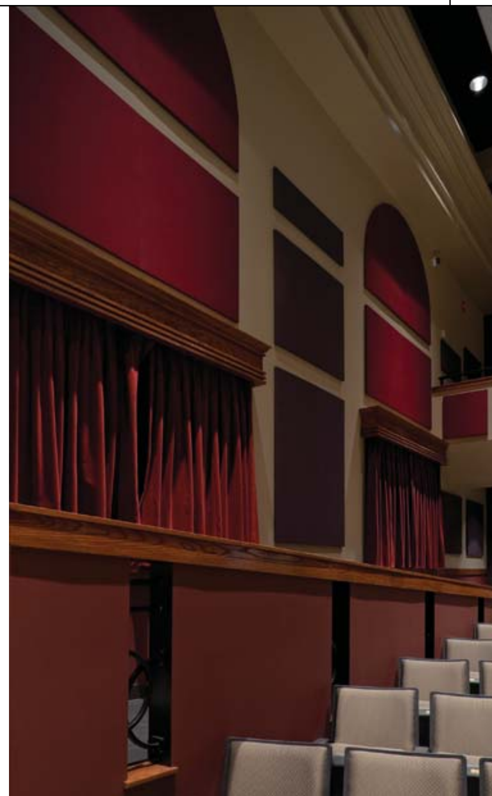
Liberty, Missouri





Before





ACI/Frangkiser Hutchens, Architects & Planners

Design team:
Larry Diehl, Principal-in-Charge;
Don Rea, Project Architect/Manager;
Behrouz Dehdasht, Architectural Support

Client:
Liberty Public Schools 53;
Mike Brewer, Superintendent

Capacity: 425 seats	**Space/student:** 13.06 sq. ft.
Area: 5,500 sq. ft.	**Total cost:** $1,238,172
Cost/square foot: $223.09	**Completion:** April 2009

Photographer:
Michael Spillers





This project had many challenges. The design directive was to renovate and update an existing auditorium to a modern, flexible performance and teaching space with expanded capabilities within a modest budget. Over the years, the auditorium had been remodeled and repaired with a piecemeal approach, and prior to renovation it was being used as a study hall.

When the design process began, the team quickly discovered electrical service was maxed out with no room for expansion. The auditorium was situated in the middle of the facility on the second and third floors with no easy access for construction. The team had budget constraints, as well as time constraints. The electrical updates and all demolition work had to be started as soon as school was out and had to be completed by the fall.

The original auditorium space featured a large amount of ornamental and decorative plaster that was preserved; its appearance was enhanced with muted colors on adjacent walls. The old theater light fixtures were ceiling-mounted and dangerous to access. New lighting fixtures were mounted on a power-operated batten at mid house.

The auditorium is a performance space and also a teaching space. An expanded control booth enables teachers to instruct students on stage and in the booth easily at the same time.

The original theater design included tall, arched windows on the side exterior that had been filled in over the years. To recapture the original design of the arched windows, acoustical wall panels were designed to mirror the shape of the original windows. The school and the community are pleased with the new auditorium, which was accomplished on time and under budget.

Monroe High School, Stadium
Monroe, North Carolina



Adams Group Architects PA

Design team: Graham Adams, Principal; Brannon Everidge, Project Manager/Designer; Manoj Kesavan, Designer; Rodney Dunham, Construction Administration; Davis-Martin-Powell Associates, Civil; Haas and Kennedy Associates, Electrical; Professional Engineering Associates, Mechanical/Plumbing; Moore Linder Engineering, Inc., Structural	
Client: Union County Public Schools; Don Hughes, AIA, Executive Director of Facilities	
Capacity: 2,200	
Area: 10,000 sq. ft	**Total cost:** $3.5 million
Completion: August 2008	
Photographers: Graham Adams; Roger Lane; Christopher Bradley	

To accommodate its growing athletic program, Union County Public Schools decided to renovate and expand the Monroe High School stadium. This 10,000-square-foot complex includes a new synthetic-turf athletic field; auxiliary fieldhouse, including a wrestling practice facility; dressing and shower areas; and office areas. Two new concession buildings include food preparation, public toilets, a new ticket office and support spaces.

The design responds to the district's interest in water conservation and provides a new school image. The synthetic turf enhances water conservation and reduces water needs. Bio-cells were incorporated to aid in water filtration and stormwater control. The stadium is used for football, soccer, track and field, and many other events. The eight-lane track is the only one in Union County that can host both regional and local events.

The "Community Hall of Fame" was developed to memorialize athletes that continued their careers professionally, and highlight team accomplishments and outstanding individuals. The interior expresses the character and identity of the school with the school mascot and colors.



Before









Point Pleasant Junior/Senior High School
Point Pleasant, West Virginia



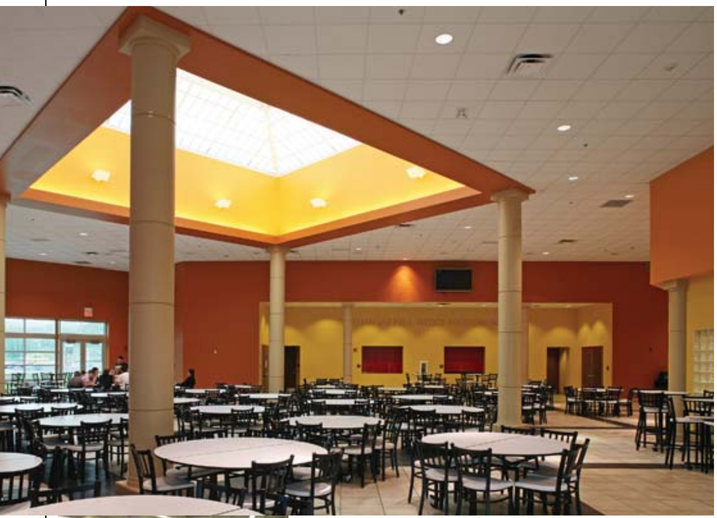
Architectural Vision Group, Ltd.

Design team: Andrejs Smiltars, AIA; Syed Abbas, AIA; Al Volak, Zora Kovanovic, Rhonda Franklin, Kevin Krepop, David Shultz		
Client: Mason County Schools; Larry E. Parsons, Superintendent		
Area: 167,844 sq. ft.	**Total cost:** $24 million	**Cost/square foot:** $142.99
Completion: April 2008		**Photographer:** Howard Doughty

The Point Pleasant Junior/Senior High School addition and renovation not only provided new facilities for the high school, but also made it possible for the two existing buildings on the site to be renovated to a "good as new" state. The addition of the high school component enabled the existing career center and old high school (converted to junior high in this renovation) to be linked. This solved the problem of student travel between unsecured buildings.

The site circulation also was addressed. In the past, students, cars and buses mingled indiscriminately in the area between the two existing buildings. The new plan addresses this problem with organized, separated bus and car dropoff and pickup areas.

The new building complex incorporates the best features of the existing buildings, using them in clear organizations, axial relationships, view corridors and a hierarchy of open space, ranging from communal gathering spots to quiet exterior courtyards. The three buildings relate to one another along connecting axes extending from the entries to the major building spaces.





Before







Vestal High School, Additions and Alterations
Vestal, New York





Bearsch Compeau Knudson Architects & Engineers PC

Associated firm: Klepper, Hahn & Hyatt, Structural Engineering Sub-Consultant

Design team:
Engineered Solutions; Michael J. Kravitz, PE, Sports Facilities Planning and Design

Client:
Vestal Central School District;
Mark Capobianco, Superintendent

Area:
240,000 sq. ft. (renovations);
30,000 sq. ft. (additions)

Total cost:
$4,546,000 (additions);
$17,003,000 (renovations); 7,899,000 (sitework)

Cost/square foot:
$152 (additions); $71 (renovations)

Completion:
August 2009

Photographers:
Van Zandbergen Photography;
Dean Jordan Photography (before)

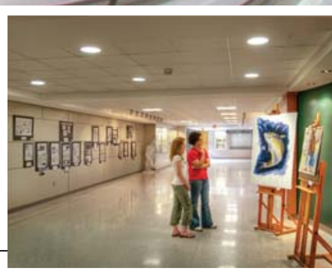
The renovation and expansion of Vestal High School responded to the challenge of aligning the appearance of the facility with the academic standards of the school. The transformation of the building, site and athletic fields was the first major construction on campus in nearly 50 years.

A primary goal of the project was to improve the aesthetics of the building and create a prominent public entrance. A large, open lobby space boasts classic architectural detailing bounded by a series of columns and clerestory windows that provides a gathering space for student and public activities. The symmetrical positioning of the main entrance structure with respect to the massing of the building creates an outdoor plaza, developed with walks, plantings and a memorial. The entrance is distinguished by the placement of a pedestrian pavilion at the perimeter of the circulation drive. Improved circulation for both the site and the building has contributed to improved safety and security, as well as ease of access for the public.

Existing instructional spaces were reconfigured to accommodate the evolving educational needs of the school. To inspire a positive learning environment, the existing facade was renovated to incorporate larger, energy-efficient windows that increase natural light while capturing views













Before





of the surrounding landscape. The design team worked with district stakeholders to realign spaces and provide 11 additional classrooms, administrative offices and a centralized main entrance lobby.

Within the building, significant renovations to the natatorium and gymnasium have created a bright and colorful atmosphere that inspires athleticism and school spirit. In addition, a new multipurpose stadium with synthetic turf, an all-weather track and grandstand was constructed. The stadium evokes a collegiate-style athletic facility and is sought after for use in many regional sporting events.

Nicholls State University, Vernon F. Galliano Hall Cafeteria Renovation · *Thibodaux, Louisiana*







Before



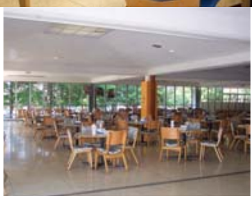
Blitch Knevel Architects	
Design team: Ronald Blitch, FAIA, Principal; Steve Templet, AIA, Project Manager; Karen Carbo, IIDA, Interior Designer	
Client: Nicholls State University; Stephen Hulbert, President	
Capacity: 500	**Area:** 28,975 sq. ft.
Total cost: $5,375,059	**Cost/square foot:** $185
Completion: September 2007	
Photographers: Joseph Bergeron; Blitch Knevel; Misty McElroy	

The 1964 Nicholls State University cafeteria was outdated and uninviting. The university wanted the dining and servery areas to be attractive, modern and meet the needs of today's students. It sought an updated exterior entry plaza that complemented the university's master plan and addressed accessibility concerns. The plaza has a covered entry and accommodates student dining.

Post-Katrina, Nicholls mandated a kitchen that could operate on limited utilities and backup power during a prolonged emergency. The design team addressed each of these issues, which were critical in the kitchen's successful response when Nicholls was hit by Hurricane Gustav in 2008. The university lost power for one week, and staff provided food and ice to maintenance and police. They also sent 1,500 meals to community food-distribution centers.

The cafeteria's previous design featured a large, open dining room with limited control at the entry. Now, when students enter the cafeteria, they are met with shape, form and color that softens but defines the different areas of the cafeteria. The ribbon-like entry hallway is seen as a decorative transition space that encases spacious booths on the dining room side. Interactive flatscreens have replaced bulletin boards and are used to post menus, hours of operation and campus events. The original low ceiling was removed, and floating "clouds" with acoustical ceiling tile for noise control were added. The exhibition-style servery enables students to see the food being prepared. The servery includes a pizza/pasta station, select entrees, themed cuisine, deli, grill, salad, beverages and bakery display, all of which are easy to find because of the "playful" signage that defines the areas. The serpentine, double-sided booths with blue accent lighting provide intimate dining areas that break up the large, open effect of many cafeteria dining rooms.





Before



"The Vernon F. Galliano Cafeteria project is a key element of our master plan to improve campus facilities and services. It serves as a showcase for recruitment and development activities. We are proud that Nicholls State offers a dining experience second to none in higher education."

—Stephen T. Hulbert, President, Nicholls State University





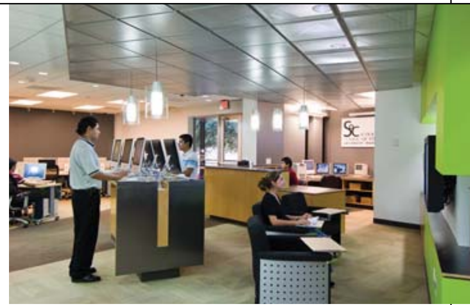


Before

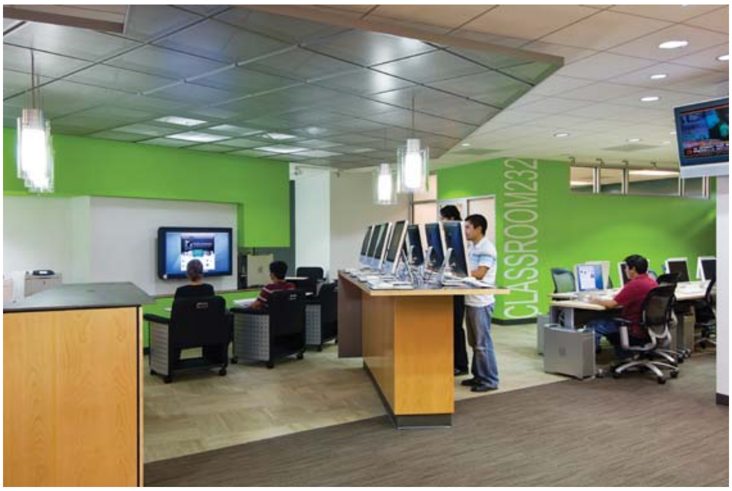


Before

University of Houston, Jack J. Valenti School of Communication, Computer Lab Renovation · *Houston, Texas*


Before



Brave/Architecture

Associated firms: GG Contracting, General Contractor; Hirsch & Associates, Inc., MEP Engineer

Client: School of Communication; Dave Irvin, Associate Vice Chancellor/Associate Vice President, Plant Operations	
Area: 5,500 sq. ft.	**Total cost:** $418,707
Cost/square foot: $76	**Completion:** August 2007
Photographers: John C. Lindy; Kennon Evett	



Several years ago, in order to cater successfully to the University of Houston's Communication Technology Center's (CTC) 1,700 undergraduate and 100 graduate students, the dean of the college of Liberal Arts and Sciences began a campaign to improve the layout, infrastructure and help desk.

The renovation is a collaborative effort among UH's Facilities Planning and Construction, CTC staff members, the architect and general contractor. Today, the revitalized center enjoys Phase I renovations, which include state-of-the-art touchscreen technology, two computer laboratories, one conference room, an open lab work space, two collaborative workstations with 42-inch touchscreen LCD monitors and a centralized support team. It also includes a climate-controlled server room, an electrical and work room, and offices for administrative staff.

The CTC opened as a centralized computing center in 1997 when the school's dilapidated darkrooms and classrooms were modified to accommodate computers by phasing out darkroom equipment. Though lacking in aesthetics, the facility's usage nearly doubled during the first two years of operation.

University of Maine, Wells Commons Conference Center
Orono, Maine



Bruner/Cott & Associates

Design team:
Daniel Raih, AIA, LEED, Principal-in-Charge; Laurie Soave, AIA, LEED, Associate/Project Manager; Jonathan Buhl, Vice President, Foley Buhl Roberts & Associates, Structural Engineer; Robert Flaherty, Principal, SEi Companies, MEP/HVAC Engineer; Shawn Small, Executive Vice President, CES, Inc., Civil Engineer; Rockwood J. Edwards, PE, Project Director, Schirmer Engineering, Codes/Permits; Robert Pacifico, Executive Vice President, Romano/Gatland, Food Service; Kurt Yeghian, Project Manager, Cavanaugh Tocci Associates, Acoustic Consultant

Client:
University of Maine, Facilities Department; Carolyn McDonough, PE, Project Manager

Capacity:
350

Area:	**Total cost:**
38,233 sq. ft.	$7 million
Cost/square foot:	**Completion:**
$183	June 2008

Photographer:
Richard Mandelkorn





Before

The renovation of this dining facility needed to include an up-to-date dining hall, servery and kitchen, as well as second-floor conference space and a "late night" campus market. The original two-story building was unoccupied and in a prime campus location, convenient to pedestrians and vehicles.

Before renovation, Wells Commons was an outdated dining hall with poor internal circulation; inadequate daylighting; inefficient mechanical/electrical/plumbing, lighting systems, insulation, windows, kitchen operations and equipment; and no connection to outdoor space.

Architectural improvements included a new addition on the north side of the building, enabling dedicated access to the renovated first-floor dining hall and a separate lobby/entrance to the renovated and expanded second-floor conference facility. The new glazed pre-function hallway outside the conference room provides views to the campus and athletic facilities. The straightforward brick architectural expression of the existing building was used as a backdrop for the glass and zinc addition. Another glazed open space was added outside the second-floor conference meeting rooms. This space provides views to the campus and athletic facilities.





To further solve circulation and outdoor connection problems, existing grade changes were removed at the ground level. This was done by adding a large, multi-restaurant retail food operation with a loading dock and outdoor seating. In response to a survey of student behavior and preferences, a campus market and retail bakery are zoned for late-night operations.

The building has received LEED silver certification.

Virginia Military Institute, 3rd Barracks
Lexington, Virginia





Before





Clark Nexsen Architecture & Engineering

Design team:
Patrick O'Keefe, AIA, LEED AP; Greg Hall, PE, LEED AP; Terri Hall, PE, LEED AP; Jerry Merritt, Associate AIA; Matt Koonts, Associate AIA, LEED AP; Caleb Hurst, PE, LEED AP; Bruce English, PE, LEED AP

Client:
Virginia Military Institute; Lt. Col. Keith Jarvis, Deputy Director of Construction

Capacity:
424

Area:
132,000 sq. ft.

Total cost:
$28 million

Cost/square foot:
$212

Completion:
February 2009

Photographer:
Richard Boyd Photography

Designed by Alexander Jackson Davis, constructed in 1857, and later expanded in 1949, Barracks has been the historical heart of the Virginia Military Institute (VMI) from its inception. To accommodate the growth of the oldest state military college in the United States, the architect designed a significant addition to meet the evolving needs of the institute as it looks to expand enrollment to 1,500 cadets.

The 132,000-square-foot expansion, currently identified as 3rd Barracks, includes capacity for 424 beds among 123 cadet rooms and has helped to eliminate the crowding of the existing Barracks complex. To make way for the expansion of Barracks, Lejeune Hall, the existing student center, was demolished. The 3rd Barracks includes program areas that were included in the original building. Integral to the 3rd Barracks addition is the new Lejeune Hall, which includes a visitor's center, the VMI Bookstore, the Commons food court and support spaces.

The existing Barracks complex is designated a National Historic Landmark and is listed on the National Historic Register. The 3rd Barracks was designed in a manner to complement the Gothic detailing of the existing structure. The design team's approach to this project was to create an iconic presence on Parade Ground while complementing the historic facility. The team worked closely with the VMI Post Historian and the Virginia Department of Historic Resources to ensure the 3rd Barracks accurately reflected the vernacular established more than 150 years ago.











Cleveland State University, Main Classroom Building Renovation, Student Services Plaza · *Cleveland, Ohio*



CBLH Design

Design team:
Timothy Hunsicker, AIA, Principal-in-Charge; Marc Bittinger, AIA, Resource Principal; Kevin Kantz, LEED AP, Project Manager; Natalie Symon, NCIDQ, LEED AP, Interior Designer; Karpinski Engineering, MEP/Technology Engineer; Barber & Hoffman, Inc., Structural Engineer; Behnke Associates Inc., Site/Civil

Client:
Cleveland State University; Edward Schmittgen, Director of Capital Planning and University Architect

Capacity:	Area:	Total cost:
1,500	185,000 sq. ft.	$24,450,000
Cost/square foot: $132	**Completion:** September 2008	**Photographers:** Robert Heine Photography, Inc.; CBLH (before)

Cleveland State University is strengthening its connection to the community by providing an environment that promotes learning, creates social opportunities and defines the urban context.

The main classroom building, situated at the center of the campus, is a key example. The plaza level of the building, built in the 1970s, was exposed to the harsh elements of northern Ohio. This cavernous space was dark, cold and a security risk. It now is an enclosed floor housing student-services departments, computer labs, dining, auditorium, conferencing and lounges. Multiple entrance points to the building, including a new north stair and elevator tower, have made this building a pedestrian hub within the campus.

The spirit of the project has become the four-story atrium/rotunda where students, faculty and visitors circulate not only on the plaza level, but also between floors on a hanging monumental stair that focuses on the skyline of the city of Cleveland. The atrium's design is a three-dimensional interpretation of the whimsical two-dimensional student center plaza that it fronts.





Before





Brandon High School
Ortonville, Michigan









Before



French Associates, Inc.

Design team:
Paul A. Corneliussen, AIA, NCARB;
Stephen M. Lodge, AIA; Barbara J. Lovell, AIA

Client:
Brandon School District; Lorraine McMahon, Superintendent

Capacity:	Space/student:
1,300	251.41 sq. ft.

Area:
292,475 sq. ft. (academic); 9,212 sq. ft. (athletic)

Total cost:	Cost/square foot:
$27,527,084	$91.24

Completion:
August 2008

Photographer:
Steve Maylone/Maylone Photography

Brandon High School was an outdated rural facility that needed significant improvement. To supplement a successful athletic program, a significant portion of the renovations to the facility was focused on outdoor play fields.

A unique iron gate, painted Brandon Eagle Blue, ushers spectators into this impressive space. The entrance is flanked by ancillary buildings housing a large concession stand with an adjacent ticket booth and restroom facility. The stadium features a new 2,800-square-foot locker room, bleacher seating for 4,000 spectators, and an elevated press box. The new playing field features a turf football and soccer field, synthetic running track, long-jump pit, high-jump area, pole-vault pad and shot-put field.

Interior renovations include a gymnasium addition and a new weightroom.

Allison Park Elementary School, Additions and Alterations

Houston, Pennsylvania





HHSDR Architects/Engineers

Design team:
J. Greer Hayden, Andreas N. Dometakis, Principals-in-Charge; David Kent, Project Architect; Rocco Guido, Interior Designer

Client:
Chartiers-Houston School District; John J. George, Superintendent

Capacity: 800	**Area:** 81,100 sq. ft.	**Total cost:** $7,562,514
Cost/square foot: $93.25	**Completion:** February 2009	**Photographer:** David Kent/HHSDR

The southernmost horizontal wing of Allison Park Elementary School is original (1957), followed by the northernmost wing (1972) and the center section (1984), connected by a corridor.

The 2009 project includes two additions. One creates a secure entry lobby, space for relocated administrative offices, and a new classroom area to the west. The lobby creates a defined entry point, and the relocated offices provide security and enhance administrative efficiencies. The six new classrooms and support areas improve the grade structure grouping within the building, and enable the district to expand its educational program.

The other addition provides a new kitchen south of the cafeteria, expanding both previously cramped and inefficient areas.

The alterations include a new roof over the 1984 section, replacement windows at the 1972 section, and spaces converted into classrooms and an academic multipurpose room. Physical access, and environmental and technology systems also are updated.

Site disturbance was minimal, and courtyard space was preserved. Construction was phased in without interfering with the school calendar. The project had a net change order credit to the district.



Before







Jefferson Elementary School, Additions and Remodeling
Omaha, Nebraska



Jackson-Jackson & Associates, Inc.

Design team:
Jack H. Jackson, AIA, Principal Architect; Eileen Korth, Project Manager; Farris Engineering, Mechanical/Electrical Engineer; Kenneth Lathrum & Associates, Structural Engineer; E&A Engineering, Civil Engineer

Client:
Omaha Public Schools; John Mackiel, Superintendent

Capacity: 575	**Space/student:** 108.17 sq. ft.
Area: 62,200 sq. ft.	**Total cost:** $6,937,150
Cost/square foot: $111.53	**Completion:** July 2007

Photographer:
Ryan Revis


Before



This project remodeled and expanded an existing 36,000-square-foot school to a 62,200-square-foot facility. The objectives of the project were to provide enough instruction space to accommodate 575 students, including classrooms and specialized learning areas, and to improve energy efficiency, security, safety and the learning environment.

A ground-loop heat-pump system was used throughout the building for heating and cooling to reduce energy costs. Clerestories in existing classrooms were maintained to introduce natural reflective light into classrooms and subsequently into adjacent corridors; thermally efficient windows replaced single-pane glass to improve energy efficiency. Regarding safety, building access is controlled with the use of card readers at all entries; site traffic was segregated; and the new kindergarten wing was constructed as a tornado shelter to accommodate the full school population.

Community use also was a key element in the design, as the building was designed to be segregated after school hours. A new multipurpose room with support spaces was provided to accommodate after-school community activities.







Jefferson City High School, Renovation and Addition
Jefferson, Georgia



James W. Buckley and Associates, Inc.

Design team:
Craig R. Buckley, AIA, President/Project Architect; Mark Taylor, Designer; William Sherrod; David Barron, Project Manager

Client:
Jefferson City School System; John Jackson, Superintendent

Area:	Total cost:	Cost/square foot:
23,900 sq. ft. (renovated); 19,200 sq. ft. (added)	$4,514,236	$104.74

Completion:	Photographer:
January 2008	Richard L. Johnson

Drawing upon the colonial historic architecture of the town's namesake, Jefferson City High School in Jefferson, Ga., modeled its extensive facade renovation on the grand promenade at the University of Virginia. White Doric columns and open-air colonnades reminiscent of its Jeffersonian inspiration create grandeur and seamlessly link the existing buildings with a new performing-arts auditorium. Double-tiered arcades with brick plinth along with front elevation adorn the existing two-story classroom wings.

The breathtaking media center was fashioned from space previously used as an auditorium. The chic interior boasts classical touches such as square columns with fluting, a coffered ceiling, windows with black mullions, an arched entry display, and a free-standing pavilion that serves as the circulation desk. The room is framed from an axis that gives scale and perfect proportion.

The added 14,000-square-feet, 658-seat performing-arts auditorium is a spectacular venue for not only students, but also the entire community. Painted brick, tones of coffee and chocolate brown, and crisp white wainscoting create richness and warmth throughout the interior.





Before







Purchase College-State University of New York, Library Rehabilitation Project · *Purchase, New York*










Before

Kevin Hom + Andrew Goldman Architects PC

Associated firms: Wayman C. Wing Consulting Engineers PC, Structural; Luongo Associates, PA, Consulting Engineers & Planners, MEP

Design team:
H+G: Lawrence Lambert, Richard Finkel; State University Construction Fund: Case Simpson, Richard Brown, Chuck Pinnix; Purchase College: Christopher Gavlick, Sean Connolly

Client:
Purchase College-State University of New York; Thomas J. Schwarz, President

Area: 46,650 sq. ft.	**Total cost:** $6,912,287
Cost/square foot: $148	**Completion:** August 2008

Photographer:
Purchase College

Situated in the center of the campus plaza, the library, one of the buildings designed by Edward Larrabee Barnes, has received a $6.9 million rehabilitation. The project included a major reworking of the library's internal circulation, relocation of the building's entrance, new accessible elevator and ramp, new information commons, new reading and reference rooms, a high-density storage area and three new computer labs. The interior finishes and furniture also have been updated.

In an attempt to revitalize the library's main entrance and presence on the plaza, the entrance has been relocated to the opposite side of the building. This shift, opposite the new student-services building, has generated a new center of campus activity for academic and social interaction on the plaza. The new entrance structure utilized a glass curtainwall system to create a transparent, light-filled entry space during the day, while enabling the light to radiate outward onto the plaza in the evening.

The new built-in circulation desk area helps welcome visitors to the library, and a new stainless steel and terrazzo staircase grants access to the main floor or the second floor's new reading room. The reading room, once filled just with rows of high book stacks, has been transformed into an open study area, housing the library's art collection and student works from the art school.

The movable furniture in the center of the reading room enables it to be reprogrammed for lectures, shows and social events. The space also takes advantage of its vaulted two-story ceiling, which enables natural light to spill through to the first floor and further into the building. The new "smart" computer labs, along with two new information commons, brings 21st-century technology into the library's expanding range of services.

New finishes, including ceilings and lighting along with new and updated furniture, round out the rehabilitated library. A lighter color palette, working with the addition of more natural light, breathes life into what was once a dark and underutilized space. This transformation has created a warm, inviting destination on the campus and has enabled the library to shine once again.

Texas Christian University, Clark Residence Hall

Fort Worth, Texas



KSQ Architects, PC

Design team:
Lindsay Reeds, Garret Krishan, David Short, Mark Bragg, Levi Miller, Chester Ehrig, Linda Kress

Client:
Texas Christian University;
Don Mills, Vice Chancellor for Student Affairs

Capacity:
214

Space/student:
225 sq. ft.

Area:
48,050 sq. ft.

Total cost:
$7 million

Cost/square foot:
$146

Completion:
August 2008

Photographers:
Chad M. Davis Photography; Lindsay Reeds; Peter Calivn Photography



Before

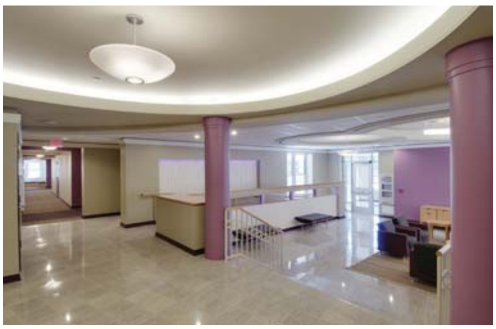


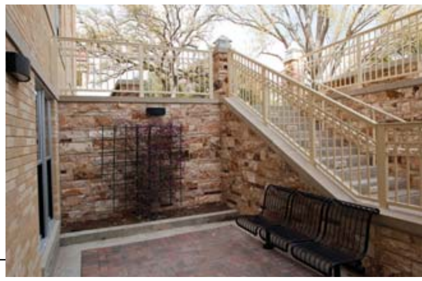
Clark Hall is a comprehensive renovation that upgraded student accommodations by enhancing technology, finishes and natural light. Wider hallways, higher ceilings and non-institutional light fixtures give a communal feel; spaces tucked around corners and in widened hallways create convenient spaces for students to congregate.

The four student entrances are grouped together to share a "front door," and at the end of each hall, glass-enclosed study spaces enable sunlight to reach the hallways while maintaining quiet areas for study. Even the basement, where laundry and common spaces are situated, was enlivened by a new entrance providing natural light and access to a normally utilitarian space. Communal bathrooms are compartmentalized so each fixture is in its own room, offering more privacy than the typical institutional stalls.

Main common rooms are updated with the latest technology for wireless computer access, television, lighting and finishes. Each of the student rooms has cable television, data ports and abundant wall outlets to accommodate the students' ever-growing need for power.









Yorktown Central School District, Auditorium Renovation

Yorktown Heights, New York





KSQ Architects, PC

Design team: Scott Hillje, Armand Quadrini, Douglas Chu, Rachel Birnboim, Chester Ehrig, Linda Kress			
Client: Yorktown Central School District; Ralph Napolitano, Superintendent			
Capacity: 600	**Area:** 6,800 sq. ft.	**Total cost:** $37.7 million (districtwide bond program)	**Completion:** January 2009

The architect is helpng the Yorktown Central School District carry out a $37.7 million bond program.

The centerpiece of the bond program is the renovation of a 600-seat auditorium for both the district and community. A full complement of cutting-edge sound mixing, motorized theater rigging and custom lighting control makes varied performances such as dance, lectures, musical ensembles and dramatic theater possible.

Efficient climate-control systems, hearing-impaired capabilities and improved ADA access ensures participation and comfort for all. Decorative profile paneling renders a visually inspiring character to the auditorium, giving it identity across the region.

Other portions of the bond program address the replacement of aging infrastructure such as boilers, roofs, paving, improving ADA access compliance and energy controls districtwide. Renovations are phased over five years.



Before







Surface wall treatment

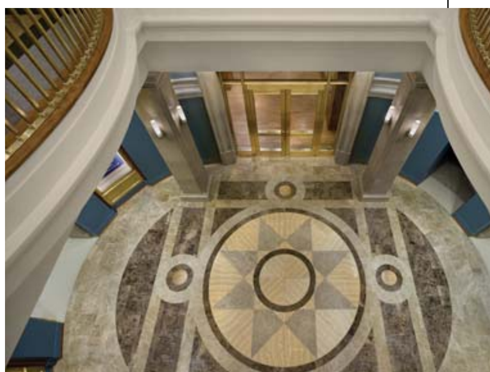
University of California—Berkeley, Bancroft Library (Doe Annex) Improvements · *Berkeley, California*







Before





Ratcliff

Associated firm: Noll & Tam Architects

Design team:

Ratcliff: Kit Ratcliff, Principal; Bill Blessing, Associate Principal; Peter Tsugawa, Associate Principal; Kevin Thornton, Senior Project Architect; Bonnie Thomas, Interior Designer; Noll & Tam: Janet Tam, Principal; Chris Noll, Principal; Diane Rogers, Interior Designer; Davis Langdon, Cost Estimator; IBE Consulting Engineers, Mechanical-Cold Storage; Huey Engineers, Plumbing; Rutherford & Chekene, Civil; URS Corporation, Site Survey; Walsh Norris & Associates, Acoustical; TEECOM Design Group, Telecom; Door + Hardware Consultants, Doors/Hardware; Pitfield & Associates, Inc., Elevator; Simpson, Gumpertz & Heger, Inc., Roofing/Waterproofing; IDS (formerly Perkins Design Associates), Landscape; Douglas Day Associates, Specifications; Bruning + Associates, Signage; Page and Turnbull, Historical; Zendarski Studio, Architectural Illustration; Steven R. Keller and Associates, Inc., Security

Client:

University of California—Berkeley; Charles B. Faulhaber, Director, Bancroft Library

Area:	Total cost:	Cost/square foot:	Completion:	Photographer:
130,000 sq. ft.	$64 million	$492	September 2008	David Wakely

This project represents a complete transformation of one of the most important rare-book research libraries in the world (collections valued at $3 billion). Constructed in 1950 and attached to the historic main Doe Library, which was designed by John Galen Howard in 1910, the Bancroft Library once was regarded as a "hard-to-find" haven. The library's rare collections were being stored in tenuous conditions and threatened by the building's poor seismic rating, inadequate HVAC, fire/life safety and security systems.

A complete gut/renovation resulted in major improvements to security and curatorial environmental considerations. In addition, the design included a new circulation pattern and a new main entry. New first-floor public spaces, such as an exhibit gallery and entry rotunda with a grand staircase leading to the main reference and reading rooms, also were created.

High-performance environmental controls address strict preservation criteria for collection storage and public spaces; sustainable design features promote healthful conditions for visitors and staff.

In September 2008, the Bancroft Library reopened, accessible to all and once again worthy of displaying the unparalleled collections.

Washington and Lee University, James Graham Leyburn Library
Lexington, Virginia




Before





SFCS Inc.

Design team:	Timm L. Jamieson, FAIA; Jack B. Weatherby, AIA; Justine M. Sowers, ASID Allied; L. Blain Cahill, PE, LEED AP; Joseph D. Zokaites, PE
Client:	Washington and Lee University; Carole Bailey, Project Coordinator, Construction Administration
Area:	31,309 sq. ft.
Total cost:	$1,242,045
Cost/square foot:	$39.67
Completion:	January 2009
Photographer:	Maxwell Mackenzie

Leyburn Library is one of the primary venues on Washington and Lee's campus where students can conduct research, study or gather with other students for group work. The library has served the students well; however, the university saw the need to modernize the facility both technologically and aesthetically to continue drawing students to its resources.

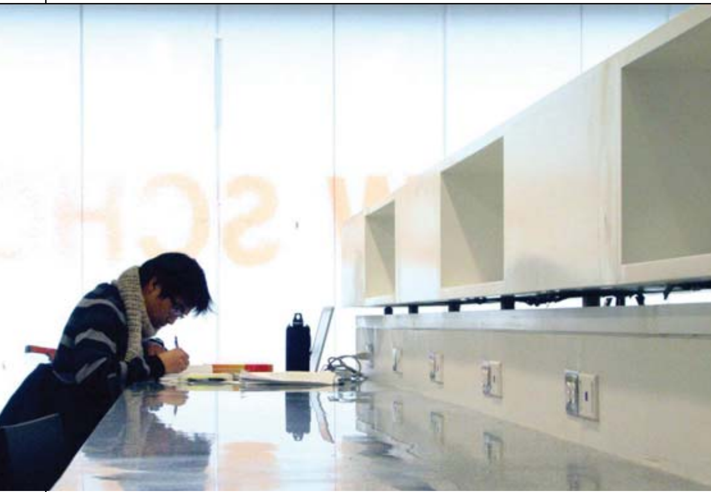
The project scope involved renovating the library's main floor and moving library technical services, which occupied one-third of this floor, to the downstairs level. The existing entry remained and a new entrance was created to establish a better connection to student activity. A new help desk, jointly operated by the library and information technology services, is situated front and center.

Prior to the renovation, student spaces were decentralized, feeling small and uninviting. Now, the floor plan is more open, with lounge areas and a cafe providing comfortable places for interaction. Utilizing architectural elements, furniture, lighting and stacks to transition from public space to quieter study areas enables many types of experiences to occur within one space.



The New School, Fogelman Library at Arnhold Hall

New York, New York





Skidmore, Owings & Merrill LLP

Design team:
Lizardos Engineering, MEP/FP; Anastos Engineering Associates, Structural; Cerami & Associates Inc., IT/AV; Ducibella Venter & Santore, Security; Design 2147, Code

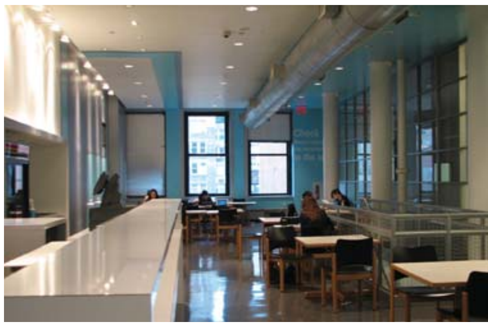
Client:
The New School, Office of Design & Construction; Lia Gartner, Vice President for Design, Construction and Facilities Management

Area:	Total cost:	Cost/square foot:	Completion:
20,000 sq. ft.	$2,808,559	$140.43	June 2009

The Fogelman Library at Arnhold Hall project incorporates 20,000 square feet of new library space on several floors of the existing Knowledge Union at The New School. This unique project is at the cutting edge of library and information-technology facilities within the university setting. Books, computers and food are integrated into spaces throughout the building, creating a very active center for the university.

The project was phased to keep the building operating throughout construction. The project provides students with computer workstations, informal seating areas, quiet study areas, computer classrooms and food services all within an existing building.

The design accommodated a very short construction timeframe oriented around the school's summer break.





Before



Owasso High School, Addition and Renovation

Owasso, Oklahoma









Before



The Stacy Group

Design team:
Michael Stacy, Principal; Sean Willis, Studio Director; Bonnie Benefield, Project Manager; Allison Curran, Interior Designer

Client:
Owasso Public Schools; Clark Ogilvie, Superintendent

Area:
120,000 sq. ft.

Total cost:
$16 million

Cost/square foot:
$133

Completion:
June 2009

Photographer:
Imageworks Studio

The additions and renovations to Owasso High School were designed to bring a new identity to the school, a clear organization of spaces and a new sense of entry. The scope of this project reorganized the entire site, and resituated the main entrance. The project added a classroom wing, administration suite, commons area, band facilities, fine arts, and athletics center. The project almost doubled the size of the existing school.

The new main entrance was resituated to the south of the school to become more accessible and welcoming to the community. The new entrance includes a secure vestibule for school security. Separate entrances were created for the main school entrance, the band facility and athletics center. Each entrance now has its own identity and organizes the campus more clearly, making it easier to navigate around the school.

Renovations included a new secondary entrance with a secure vestibule. It also included a complete renovation of the media center and existing cafeteria.

The additions were designed to maximize daylighting controlled through sunshades, low-e glazing and a completely redesigned computer-controlled HVAC system. Indoor air quality was maximized by the use of low-VOC materials.

Bishop Ward High School, St. Albert the Great Science Classroom
Kansas City, Kansas



Treanor Architects, PA

Design team: David H. Livingood, AIA, Project Principal; Jennifer L. Kulseth, Associate AIA, Laboratory Design; Audrie K. Wenger, IIDA, Interior Design		
Client: Bishop Ward High School; Fr. Michael Hermes, President		
Capacity: 30	**Area:** 1,700 sq. ft.	**Total cost:** $281,352
Cost/square foot: $167	**Completion:** August 2007	**Photographer:** Michael Spillers

Building on the success of "Extreme Makeover" television, Bishop Ward High School's steering committee journeyed down the path of modernizing one classroom as a first step to invigorate alumni and friends with what could become a complete renovation of the historic 75-year-old building. Options were explored, and because of a deplorable learning environment and numerous safety concerns, the chemistry classroom was selected as the area with the greatest need for improvement.

The design principles for the 1,700-square-foot renovation were identified: Enhance the school's history; create an energizing space for science education; incorporate Catholic faith in the learning environment; and improve safety. Colors and symbols were used to support the school's history, and the organic layout and special features provide an environment that encourages students in their work. Custom tile murals of St. Albert (Patron Saint of Science) and a 1930 Periodic Table of Elements provide a connection to the Catholic faith and its historical relationship in science.

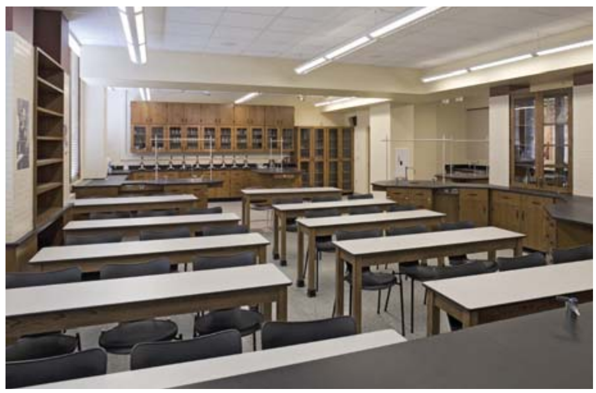
This project was made possible through the generosity of key supporters and a grant from the Ewing Marion Kauffman Foundation.



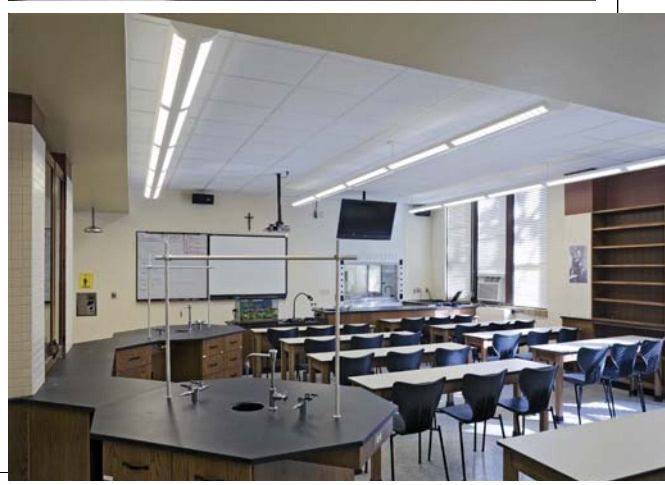


Before









The University of Missouri—Columbia, Schweitzer Hall Renovation and Addition · *Columbia, Missouri*









Before



Treanor Architects, PA

Associated firm: The Clark Enersen Partners

Design team: Treanor: Dale P. Glenn, AIA, Project Principal; Clark Enersen: Tim Reynolds, PE, Lead Electrical Engineer; Shawn Diederich, PE, Lead Mechanical Engineer; Greg Lattig, AIA, Lead Laboratory Planner	
Client: University of Missouri—Columbia; Bobb Swanson, Assistant Director, Design and Construction Services	
Area: 24,800 sq. ft.	**Total cost:** $7,724,615 (construction)
Completion: January 2008	
Photographer: Stephen J. Swalwell/Architectural Foto Graphics	

Expanding and renovating Schweitzer Hall fulfilled the university's commitment to enhance research and instruction in the University of Missouri medical and life sciences. The project enabled critically needed laboratory space to be freed up, and through the consolidation of the faculty, enhances the productivity of the University of Missouri—Columbia Department of Biochemistry.

The new structure needed to conform to the specific institutional requirements for compatibility with the decades-old limestone campus, and provide maximum square footage for new state-of-the-art biochemistry laboratories and a facility for an 800 MHz Nuclear Magnetic Resonance (NMR) spectrometer serving the entire University of Missouri System.

The addition of three stories and a mechanical penthouse was designed to provide flexible laboratory space on three floors. A second-story enclosed bridge connects the addition to an adjacent biochemistry building and spans a required student pedestrian pathway below. The addition reflects the image of the surrounding Collegiate Gothic white campus buildings with sloped slate roofing and mixtures of coursed ashlar limestone and cut limestone.

Sullivan University, College of Pharmacy
Louisville, Kentucky



Studio Kremer Architects, Inc.

Design team:
Ron Metts Construction; Kerr-Greulich Engineers; Structural Services, Inc.; Milestone Design Group

Client:
Sullivan University System; Glenn D. Sullivan, President

Area:
29,936 sq. ft.

Total cost:
$3,972,902

Cost/square foot:
$127.70

Completion:
September 2008

Photographers:
Michael Jarboe; Bill Noel



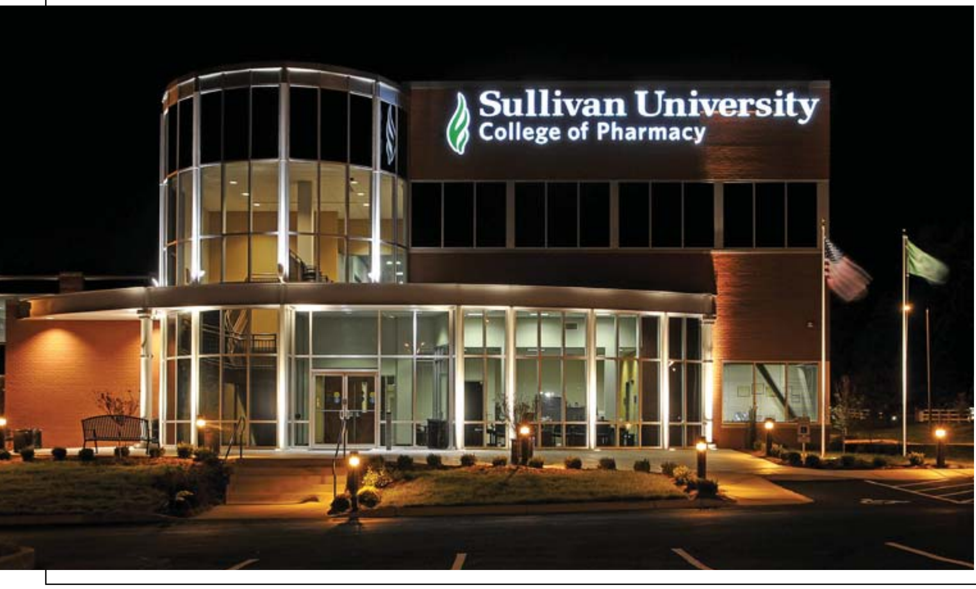
Before



The project consisted of an 18,000-square-foot addition to be built onto an existing office building purchased by Sullivan University. Formerly known as the Nolan Building, the structure was a collection of a building and additions constructed between 1962 and 1969. The original structures were mid-century modern in style and constructed of beige brick with white marble, black glass and aluminum window details. Other buildings on the Sullivan campus are of dark red/brown brick.

The addition is three stories and finished in the same dark red/brown brick as the adjacent buildings. The original beige brick was stained to match, and the marble was replaced with black glass similar to the new construction.

The college of pharmacy includes a student lounge; office and administrative spaces; two research labs; two 100-seat tiered auditoriums; a 5,000-square-foot, 50-student compounding lab; and a working pharmacy operated in conjunction with a national retail pharmacy chain.





The addition blends with the renovated building and honors the existing style while providing a new aesthetic for Sullivan University.

Linelle Warren Middle School, Addition/Renovation
Forney, Texas







Before









WRA Architects, Inc.

Design team:
Jeff Miller, AIA, LEED AP, Principal-in-Charge; Lowell Taylor, AIA, Project Manager; Sabrina Sutton, Tara Thornberry; Ken Oakes, Construction Administration

Client:
Forney Independent School District; Dwayne Thompson, Director of Finance and Operations

Capacity:
1,000

Space/student:
146 sq. ft.

Area:
145,815 sq. ft.

Total cost:
$16,310,373

Cost/square foot:
$111.86

Completion:
November 2007

Photographer:
Grady L. Frank

This decades-old school once had been the district's high school, but over time had evolved into a checkered site of disconnected buildings with little aesthetic cohesion. The goals for this renovation were to connect all parts of the school under one roof; to create a convenient circulation flow around and through a new courtyard; and to create a unified architectural style to be carried throughout the campus.

The design concept involves arranging the campus on two separate structural grids at a 30-degree angle from each other, situating academic areas on one grid and activity/public areas on the other. Two prevailing, but different, masonry patterns in the existing facility were retained in the renovation and resolved creatively by assigning them to the academic and public grids, and continuing them in the additions.

Older buildings were demolished and replaced. Newer portions were retained and upgraded. This renovation also had to meet the same program requirements as the district's other middle school (a new building) in order to maintain parity. A new front gave the school a fresh identity in the community.



WORK IN PROGRESS

CITATION



"Great example of rigorous site analysis and design to produce a highly functional net-zero-energy addition."
—2009 jury

OUTSTANDING WORK IN PROGRESS



p. 209

Visit SchoolDesigns.com.

Liberty High School, Media Center
Liberty, New York











The Liberty High School media center addition is designed to use 50 percent less energy than an average building of the same size. This reduction in energy use occurs primarily through architectural strategies. The building shape and window locations were determined with careful consideration of the sun's path across the sky, bringing even levels of north daylight into the building to reduce artificial lighting and keeping low east and west sun out of the building to reduce cooling energy use in the summer. The building also has a draft-tight building skin and properly designed insulation. These architectural strategies work in concert with efficient, sensibly designed mechanical/electrical systems to greatly reduce energy consumption without adding cost to the construction.

A photovoltaic system, integrated into the design of the building, offsets the 50 percent energy use remaining. The media center addition is a net-zero-energy building. On an annual basis, it makes as much energy as it uses.

Instead of viewing energy conservation as a matter of adding costly high-performance mechanical/electrical systems to the building, the architect developed an ultra-high-performance building based on maximum utilization of the site's resources: sun, wind, shade and topography.

Ashley McGraw Architects, PC

Associated firm: Munly Brown Studio

Design team:
Anthony Phan, AIA, LEED AP; Peter Larson, AIA, LEED AP; Brandon Burd, LEED AP; Robert Haley, AIA, LEED AP; Theodore Brown; Ashley Freund, LEED AP; Jason Coe; Scott Perry, RA

Client:
Liberty Central School District; Michael Vanyo, Superintendent

Capacity: 114 (additions)	**Space/student:** 60 sq. ft. (additions)	**Area:** 7,000 sq. ft. (additions); 160,834 sq. ft. (total)
Total cost: $30 million	**Cost/square foot:** $280 (construction)	**Completion:** September 2010

"Great example of rigorous site analysis and design to produce a highly functional net-zero-energy addition."

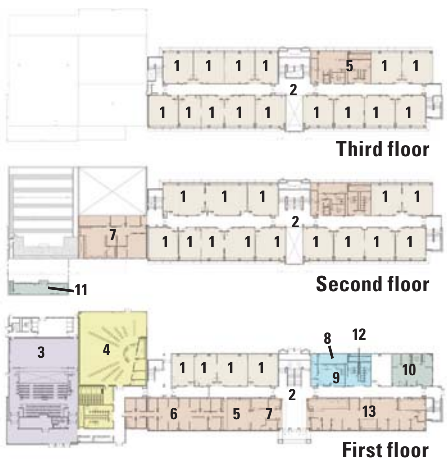
—2009 jury

Sweetwater Union High School, Administration, Theater and Library Complex · *National City, California*









LEGEND
1. Classroom
2. Lobby
3. Theater
4. Library
5. Work room
6. Student services
7. Offices
8. Lounge
9. Staff restroom
10. Health center
11. Control room
12. Boys'/girls' restrooms
13. Administrative offices

BCA Architects

Design team:
Paul Bunton, AIA, Principal; Samer Kawar, AIA, Lead Designer; Gary Moyer, CDT, Project Manager; Claire Dinh, Job Captain; Tian An, Project Designer; David Rausch, AIA; Stephen Lane, AIA; Lacey Flanagan

Client:
Sweetwater Union High School District; Jesus Gandara, Superintendent

Capacity:	Space/student:	Area:	Total cost:
917	88 sq. ft.	81,000 sq. ft.	$30.5 million

Cost/square foot:	Completion:
$376	September 2010

Sweetwater Union High School has been a proud and important part of the National City community for a long time. However, because of the lack of space and long-term planning, visitors and users have had difficulty navigating and accessing spaces on campus.

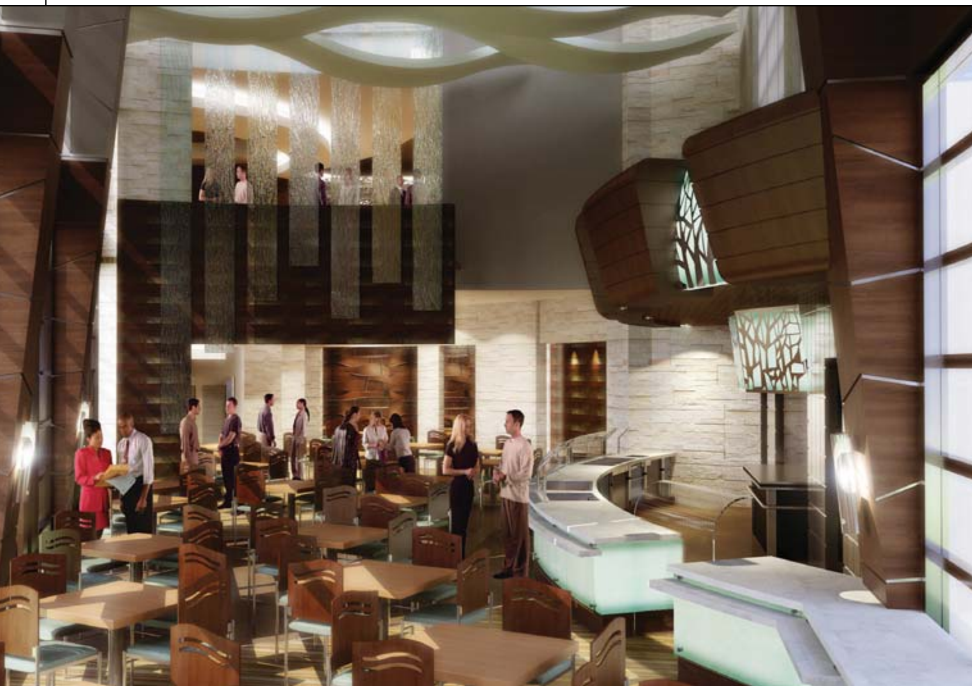
This design updated campus circulation and safety while consolidating academic and administration functions in Building 100, which is designed to LEED gold certification. The new master plan and gateway building respond to, and juxtapose against, historical cues at this 89-year-old high school. Placed at the campus edge, and housing student services, classrooms, a library and a theater, the three-story building frees up needed open space at the campus center.

Along the building's extended 430-square-foot facade, a central tower resembling the original Mission Revival building on site marks the campus entrance; as counterpoint, a transparent glass curtainwall wraps the 250-seat theater and state-of-the-art classroom wings.

Facing a busy street, the building's civic appearance and iconic tower are responsive to past context and students' future needs.



Florida Atlantic University, Business Services Banquet Hall and Food-Service Venue · *Boca Raton, Florida*







Gallo Architects & Development Consultants, Inc., D.B.A. Gallo Herbert Lebolo

Design team:
KAMM Consulting, Inc., Engineer;
Green Building Services, Energy Consultant;
DEI Design, Inc., Food-Service Consultant

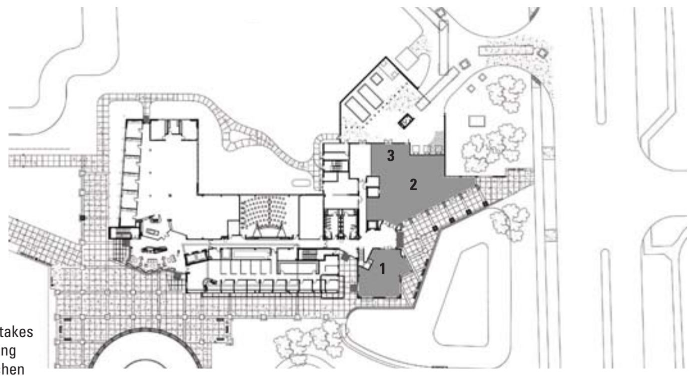
Client:
Florida Atlantic University; Stacy Volnick, Interim Director

Capacity: 260 seats	**Area:** 8,809 sq. ft.
Total cost: $1.8 million	**Cost/square foot:** $204
Completion: March 2010	

Florida Atlantic University (FAU) required a food-service venue and banquet hall to accommodate the needs of alumni, students and the community. To meet the program requirements, the architect designed a two-story, 8,809-square-foot interior build-out inside the four-story College of Engineering building.

Situated on the first floor are Outtakes, a high-end food retailer; Chick-N-Grill, a restaurant; and a dining area. On the second floor, the architect designed a banquet hall with a multipurpose kitchen to accommodate different events such as faculty dinners, on-campus catering, weddings or seminars. Because of the unique character and design elements used, the space can be used separately or together depending on an event's requirements.

To tie into FAU's goal of certifying the College of Engineering as a LEED platinum building, the architect created an organic space with free-flowing forms, which enable the user to experience the space in a natural and timeless manner. The use of environmentally sensitive materials and striking daylight techniques create a strong connection with the exterior environment.



LEGEND
1. Outtakes
2. Dining
3. Kitchen

Partial site plan

Stony Brook University, Kelly Dining Center
Stony Brook, New York



KSQ Architects, PC

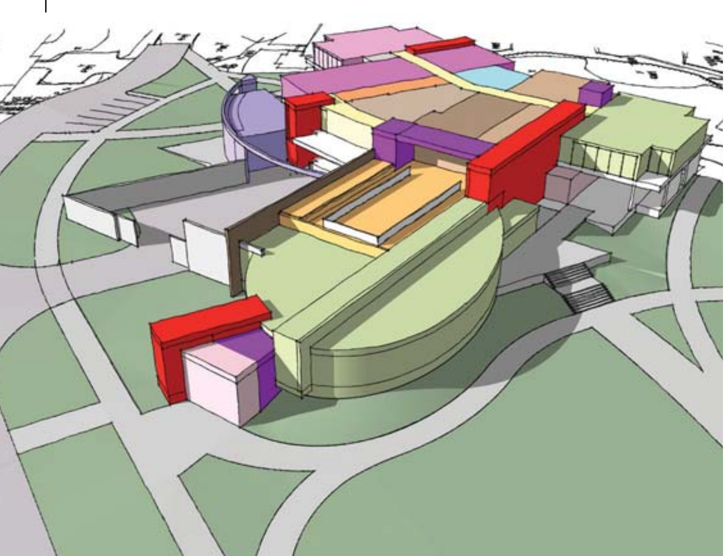
Associated firm: Envision Strategies

Design team: Armand Quadrini, David Short, Garret Krishan, Chester Ehrig, Kimberly McCoy, Robert White		
Client: Stony Brook University; Kevin Kelly, Executive Director of FSA		
Capacity: 500	**Area:** 10,000 sq. ft. (new); 23,000 sq. ft. (renovation)	
Total cost: $15 million	**Cost/square foot:** $454.55	**Completion:** August 2011
Photographer: Nancy Harkins (rendering)		

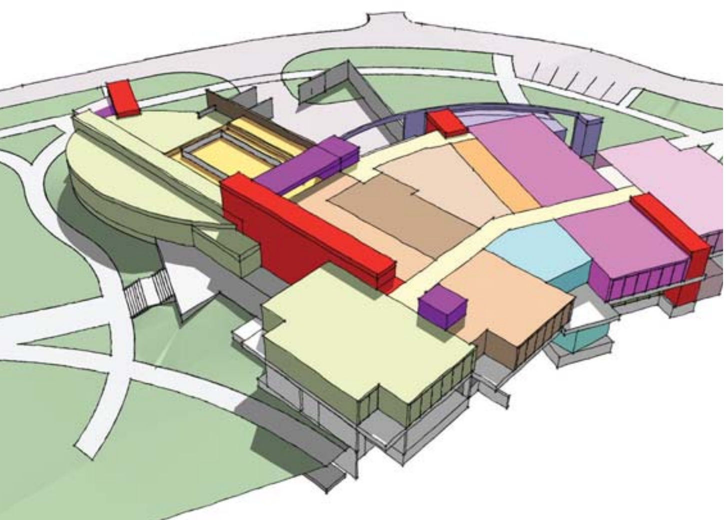
Stony Brook University wanted to modernize and expand its existing dining center. The design team focused on opportunities to accommodate a diverse campus population, including the undergraduate housing community and the on-campus apartment dwellers. Work will include renovations and additions and new construction to accommodate these demands using a retail-based "concepts" approach.

The architect performed an in-depth programming, adjacency and stacking study to define needs and understand the complexity of the dining/administration addition and renovation; the existing facility was operational during this construction period. The curved form of the dining center defines itself as a meeting point in the community while fitting into the larger campus context.

Issues such as safety, security, productivity, cost and schedule were considered in order to develop a solution for Stony Brook University. The project will pursue LEED silver certification and meet the future needs of a diverse group of students.



View from Northeast



View from Northwest



Phasing diagrams, first floor

Spring Creek School
Brooklyn, New York



STV

Design team:
Abel Bainnson Butz, LLP, Landscape Architecture; Romano Gatland, Food Service; VJ Associates, Cost Estimating; Ostergaard Acoustical Associates, Acoustical Consulting; Harvey Marshall Berling, Theater Consulting; VDA Associates, Vertical Transportation Consulting; Robert Schwartz, Architectural Specifications

Client:
New York City School Construction Authority; Jay Eberfield, Deputy Director

Capacity: 1,250	**Space/student:** 125 sq. ft.	**Area:** 154,000 sq. ft.
Total cost: $85 million	**Cost/square foot:** $552	**Completion:** September 2012

Photographer:
STV/NYCSCA

The four-story facility will accommodate 1,200 students in grades six through 12 in two separate schools. Amenities will include science laboratories, a library, media center, art and music rooms, technology rooms, a 550-seat auditorium, a gymnasium, two student cafeterias with a common kitchen, an entry plaza and a play yard.

The design meets the NYC Green Schools Guide Rating System requirement. Low-flow fixtures and occupancy sensors will save water and energy. Ten percent of materials will have recycled content. Low-emitting materials will be required for materials such as carpets, paint and coatings. Two large roof spaces, free of mechanical equipment, will make space for a green roof or renewable energy equipment in the future.

One challenge at the site is caused by the organic silt and loose sand, which cannot support the new facility alone. The soil's bearing capacity has been improved with vibro-replacement, which will insert about 2,500 stone columns—each 3 feet wide, 50 feet deep and 7 feet on center—into the ground and compact the surrounding soil.

The facility's exterior facade will feature brick masonry in two patterns, precast concrete panels, aluminum panels and translucent wall panels. Precast concrete panels also will enclose the gymnasium, auditorium and cafeterias.







Angelo State University, Centennial Village Residence Hall and Commons · *San Angelo, Texas*











Randall Scott Architects
Design team: Randall B. Scott, AIA; Greg Conaway, AIA; Edward Bailey, AIA
Client: Angelo State University; John Russell, Director of Facilities Planning and Construction
Capacity: 530 beds; 196 units
Area: 165,927 sq. ft.
Total cost: $28.2 million
Cost/square foot: $170
Completion: December 2009

The architect designed Centennial Village to provide housing for a variety of students at a variety of price points. The units are designed efficiently with private bedrooms and grouped into about 40-bed communities around a resident assistant.

The efficient unit design encourages students to spend the majority of their leisure time in the well-appointed commons recreation/lounge, cyber lounge, meeting room and central laundry area. Large glass expanses in the commons provide views to the well-landscaped pedestrian plaza, and volleyball and sports courts directly outside.

The E-shaped building plan forms the north and west campus edges, and the gable roofs reference the adjacent residential neighborhood. The inner sanctum of the E form, the courtyard and commons, open to the campus and welcome residents from the campus mall, as well as the nearby student union and academic buildings. Unit types include four-bedroom/two-bath and two-bedroom/one-bath units with micro-kitchens.

Centennial Village was designed with many green features, including low-flow fixtures, drought-tolerant landscaping and high-performance glazing.

Angelo State University, Plaza Verde Residence Hall

San Angelo, Texas



Randall Scott Architects

Design team:
Randall B. Scott, AIA; Greg Conaway, AIA; Edward Bailey, AIA

Client:
Angelo State University; Mike Ellicott, Vice Chancellor, Facilities Planning and Construction

Capacity:
457 beds

Space/student:
368 sq. ft.

Area:
214,260 sq. ft.

Total cost:
$28.5 million

Cost/square foot:
$133

Completion:
August 2011

Plaza Verde is a new generation of residence-life housing designed to provide staff and students with the ability to create as many as 18 different unit configurations from one standardized 1,200-square-foot "flex unit." Through interactive online software, students and parents can select their housing configuration virtually and receive immediate price-point feedback. Coupled with the university staff's use of building information modeling software, the housing registration/selection reduces residence life's staff workload significantly.

The planning concept called for Plaza Verde Residence Hall to expand the existing campus mall an additional 50 feet in width to create "The Street," an activity-filled plaza with mixed-use retail on the ground floor complemented with student housing on the second and third floors above.

Plaza Verde is designed to create community at all levels. It surrounds a "quad" that resulted from the redevelopment of existing parking areas and the closing of internal streets adjacent to the residence hall.

Plaza Verde Residence Hall was designed as a LEED gold facility; numerous design innovation credits are being sought for a green roof, rainwater harvesting and grey-water recycling.







Sam Houston State University, Performing Arts Center
Huntsville, Texas



WHR Architects

Design team:
Kirby M. Keahey, FAIA, Principal-in-Charge; Marie Hoke, AIA, Senior Designer/Project Manager; John Smith, Designer

Client:
Sam Houston State University; John McCroskey, Director for Facilities, Planning & Construction

Area:
101,950 sq. ft.

Total cost:
$31,297,336

Cost/square foot:
$307

Completion:
July 2010

In anticipation of establishing a new College of Fine Arts, Sam Houston State University is seeking to create a new performing-arts center that will unite the music, theater and dance departments. The new center is situated at the terminus of a green space flanked by the existing music building and University Theater Center and will link both buildings physically. An outdoor performance area adjacent to the large, open lobby serves as the centerpiece of the arts complex, providing visitors a congregation space and showcasing students' artwork while enabling natural light to enter the center of the building.

An additional goal of the design includes creating distinct identities for each performance venue. The 750-seat concert hall and 150-seat dance theater have sloped roofs that set them apart from the rest of the complex, and the dance studios are cantilevered from the second floor, giving them a dramatic presence on the north side of the building.



Site plan

LEGEND
1. University Theater Center
2. Outdoor performance space
3. Music building
4. Concert hall
5. Performing-arts center
6. Dance theater
7. Dance studios





Don R. Roberts Elementary School

Little Rock, Arkansas













Wittenberg, Delony & Davidson, Inc. Architects

Design team: Jack F. See Jr., FAIA; Bradley Chilcote, AIA, LEED AP; Bryan Adams, AIA, LEED AP; Randy Orr, AIA		
Client: Little Rock School District; Linda Watson, Superintendent		
Capacity: 865	**Space/student:** 183 sq. ft.	**Area:** 158,380 sq. ft.
Total cost: $25.5 million	**Cost/square foot:** $161	**Completion:** August 2010

An enhanced learning environment and increased energy efficiency were the Little Rock School District's main goals for the 158,380-square-foot Roberts Elementary School.

It serves 865 students from pre-K through fifth grade. The two-story school is broken into pods, creating smaller communities of learning. These communities are centered on an extended learning center or "commons" to be used for student activities, presentations and projects. The academic zones surround the media center, which serves as the hub of the instructional design. Two art classrooms, two music classrooms, a piano keyboarding lab, a reading mezzanine, science labs and dedicated physical-education space add more learning possibilities.

Sustainable-design strategies, such as large areas of glass in each classroom and clerestory windows into interior spaces, resulted in the maximum usage of daylight in the school's major program areas. Solar heat gain is mitigated through the orientation of the windows and sunshade devices.

Recycled and local materials were given preference, and light controls reduce electrical consumption. Roberts Elementary's design furthers the district's initiative to provide students with intimate learning opportunities in a user-friendly atmosphere.

COMMUNITY USE

OUTSTANDING COMMUNITY CENTERS/JOINT-USE FACILITIES



p. 216



p.219

PROTOTYPE FACILITIES

OUTSTANDING PROTOTYPE FACILITY



p. 220

Visit SchoolDesigns.com.

Peter Cooper Village/Stuyvesant Town, Oval Kids

New York, New York



CetraRuddy

Design team:
John Cetra, Nancy J. Ruddy, Jeffrey Rosenberg, Mary Burke, Paris Forino, Kate Emmons, Pierpaolo Martiradonna, Alicia Redman, Ximena Hoyos

Client:
Tishman Speyer Properties; Erik Rose, Senior Director

Capacity:
132

Area:
1,750 sq. ft.

Total cost:
$1,321,250

Cost/square foot:
$755

Completion:
July 2008







The architect has created a unique recreational and educational amenity space called Oval Kids at Peter Cooper Village/Stuyvesant Town.

The innovative exterior at Oval Kids utilizes a crystalline glass enclosure to create an indoor/outdoor educational and play environment for preschool-aged children during all seasons of the year.

Playful glass art elements articulate the floor-to-ceiling glass exterior panels. A bluestone terrace with outdoor seating creates a podium on which the glass form sits. The glass form is a refined modern aesthetic that enhances the pedestrian experience and is surrounded by lush gardens.

On the inside, Oval Kids has wide expanses of open space for flexible activity use; more private areas, such as a screening area, storytelling area, kitchen and changing area, are tucked to the sides.

The ceiling and flooring of bright colors enliven the room and are accented by colorful and durable activity spaces where children can enjoy art and craft projects. The flooring was fabricated from sustainable, multicolored, recycled rubber materials.

Furniture selections are lively and sculptural to add a vibrant and enriching playful experience. A visually exciting cubby area is accentuated by black vinyl walls that can be written on and personalized.

Extra insulation and soundproofing were used to reduce the noise levels for residents above. Existing structural columns and plumbing systems were disguised within unique and innovative design details that incorporated the colorful schemes in this attractive play space.

Handcrafted and thoughtful details inspire and surround this educational and engaging atmosphere. All are welcome at Oval Kids to explore and create something wonderful.

River City High School, West Sacramento Recreational Center
West Sacramento, California



DLR Group

Design team: Ralph Vitiello, Principal-in-Charge; Rick Parks, Project Manager; Jon Anderson, Project Architect; Stan Axthelm, Project Architect; Chris Brown, Senior Designer; Karl Derrah, Senior Designer; John Blackwell, Design Planner; Ted Wright, Junior Designer; Ben Foth, Junior Designer; Mike Hans, Landscape Architect; Tim O'Dowd, Cassy Preheim, Job Captains; Jessica Hodges, Interiors; Jim Shively, Joe Angello, Construction Administration; Julie Wolfenden, Project Administration	
Client: Washington Unified School District; Stuart MacKay, Principal	
Capacity: 2,400 (high school)	
Area: 319,000 sq. ft. (school); 56,800 sq. ft. (outdoor aquatic center); 37,699 sq. ft. (rec center building)	
Total cost: $110 million (construction)	**Cost/square foot:** $266.02
Completion: January 2009	**Photographer:** Mark Boisclair







The City of West Sacramento partnered with Washington Unified School District and the architect to design a joint-use recreational center on the campus of a new high school. The recreational center is a true community asset, serving the student population and the West Sacramento community.

Upon entering the public lobby, guests are engaged immediately in the activity that surrounds them: pick-up games in the gymnasium, board games in the lounge, and weightlifting in the cardiovascular area.

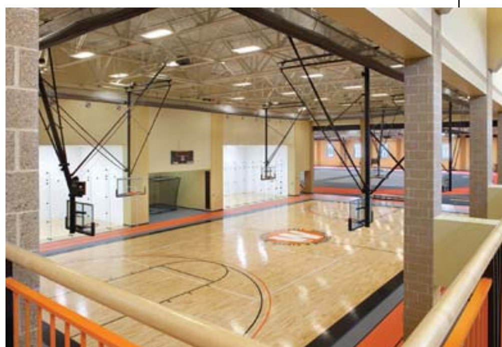
The center's icon is a 32-foot-tall freestanding rock-climbing wall situated behind a glass curtainwall. As an increasingly popular sport, rock climbing provides a physical challenge for all ages. An auxiliary gymnasium meets the needs of River City High School and provides residents with indoor sports opportunities such as basketball, volleyball and badminton.

The 56,800-square-foot outdoor Family Aquatics Center features three pools, including a 35-meter competition pool shared with the school district. Other amenities include a zero-entry family play pool with a "lazy river," a waterslide pool, tennis courts, athletic fields and a 3,000-seat multi-sport stadium.

Wartburg College, Wartburg-Waverly Sports & Wellness Center
Waverly, Iowa







Hastings & Chivetta Architects, Inc.

Design team: Christopher Chivetta, PE, LEED AP, Principal-in-Charge; Erik Kocher, AIA, LEED AP, Design Principal; Dennis Lammert, AIA, LEED AP, Project Manager; Mark Keane, AIA, LEED AP, Design Architect; Chris Rollhaus, AIA, LEED AP, Project Architect; Dan Passanise, AIA, LEED AP, Construction Administrator	
Client: Wartburg College; Gary Grace, Vice President for Administration	
Area: 194,000 sq. ft.	**Total cost:** $27 million
Cost/square foot: $139.18	**Completion:** December 2007
Photographer: Sam Fentress	



The Wartburg-Waverly Sports & Wellness Center is one of the nation's first combined campus and community athletic and recreation centers. The facility was intended specifically to accommodate the needs of the college's nearly 1,800 students plus faculty and staff, as well as members from the city of Waverly and surrounding communities.

Shared areas for college and community members include strength training and cardio fitness equipment, a wrestling room, aerobics and multipurpose rooms, two racquetball courts, a climbing wall, 200-meter fieldhouse, and an auxiliary gymnasium for practicing and intramural sports. A natatorium offers a leisure pool, whirlpool, sauna and wet classroom. Public spaces include lounges, a childcare center, meeting rooms and a juice bar.

Levick Arena, with a capacity of 1,800, hosts basketball and volleyball competitions. The wrestling room is considered one of the finest in the nation.

A special component is the wellness and healthcare center with a health-services laboratory, massage therapy room, fitness assessment, testing lab, medical records, physicians' and administrative offices, and a central nurse station. An athletic training room includes rehabilitation, hydrotherapy, examination rooms, taping rooms and treatment rooms.



Russell County Schools, Auditorium/Natatorium

Russell Springs, Kentucky



RBS Design Group Architecture, PSC

Associated firm:
Branscum Construction, Construction Manager

Design team:
Jim Ivy, Architect; CMTA, Mechanical/Electrical Engineer; Wilkie Structural Engineering, Structural Engineer; A.G.E. Engineering Services, Inc., Civil Consultant; Brandstetter Carroll Inc., Pool Consultant

Client:
Russell County Schools; Scott Pierce, Superintendent

Area:
43,730 sq. ft.

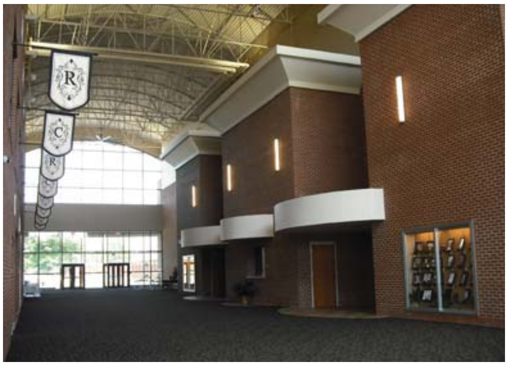
Total cost:
$13,070,026.35

Cost/square foot:
$298.88

Completion:
June 2009









The Russell County Schools auditorium/natatorium project consisted of the construction of a 738-seat auditorium; a new natatorium with a 25-meter, eight-lane pool, locker rooms, spectator seating area, concessions and lobby area to serve the auditorium and natatorium; 10 classrooms; a multipurpose room; fitness room and band room (attached to existing high school building); and remodeling of existing band room into two classrooms. The auditorium/natatorium serves the school district and community as a fitness center and helps provide a local venue for conferences, plays, concerts and other events.

Col. Victor Ferrari Learning and Leadership Development Center

San Antonio, Texas



WestEast Design Group, LLC	
Design team: Christopher Kimm, AIA	
Client: City of San Antonio; Bill Hensley, Assistant City Architect	
Area: 12,700 sq. ft.	**Total cost:** $1.7 million
Cost/square foot: $133.86	
Completion: January 2006	**Photographer:** Chris Cooper







This is a new 10,000-square-foot community teaching center and 2,700-square-foot daycare facility for the city of San Antonio, serving Districts 8, 9 and 10.

This project had considerable challenges:

•The project site was too tight to accommodate all the building program requirements.

•It housed two different occupancy types, creating life-safety issues.

•Tight construction budget.

•It is situated in an area prone to vandalism.

All allowable areas of the 0.89-acre site were used with no room to spare. The two different occupancy areas in the building are divided by a hallway with clerestory windows, creating a light well that identifies the separation of functions.

To control the budget, the design used materials commonly available in local distribution and manufacturers' warehouses. The exterior and interior were designed carefully for easy construction methods to achieve cost savings while maintaining the unique form of the building.

Because the project area is prone to vandalism, the building had to be able to withstand abuse. The exterior was painted in two different colors and into smaller sections so graffiti can be painted over easily.

Rudolfo Anaya Elementary School
Albuquerque, New Mexico





Van H. Gilbert Architect PC

Associated firm: Fanning Howey

Design team: Michael Hill, AIA, LEED AP, Project Manager; Jim Graf, AIA, LEED AP, Project Designer; Andy Benson, AIA, LEED AP, Project Architect; Stephen Smith, BIM Coordinator		
Client: Albuquerque Public Schools; Karen Alarid, Director of Facilities, Planning, Design and Construction		
Capacity: 850	**Area:** 83,304 sq. ft.	**Total cost:** $15,049,781
Cost/square foot: $180.66		**Completion:** April 2009

Rudolfo Anaya Elementary School is a green, high-performance prototype design for Albuquerque Public Schools. The project is one of three schools built simultaneously to test the adaptation of the prototype to sites with a diversity of constraints and challenges. The prototype consists of a kit of parts: kindergarten, classroom pods, administration, gymnasium, kitchen/cafeteria, media center and intensive support spaces.

The 83,000-square-foot, two-story building mass is organized into two slender wings, maximizing building perimeter, creating shaded areas and offering natural ventilation and daylight. The two wings merge at the school's core, creating shared indoor and outdoor gathering spaces that promote interaction and collaboration.

The school employs a number of green strategies that reduce operating costs and mechanical first-costs; boost performance with passive solar strategies; and increase building longevity, comfort and aesthetics. These strategies include a closed-loop solar-collector system for domestic water heating, unique sunshade fabrication, high-performance mechanical systems, efficient building envelope, and a cool (reflective) roof system.







CAMPUS MASTER PLANNING

CITATION

EMO/ARCHITECTS, INC.
Tallahassee Community College,
Campus Master Plan
Tallahassee, Florida ....p. 222

"Creative solution to flooding and stormwater control, while expanding the college's pedestrian zone.
—2009 jury



OUTSTANDING CAMPUS MASTER PLANNING

Randall Scott Architects, Inc.
Tyler Junior College, Comprehensive Campus Master Plan
Tyler, Texas .... p. 223

Symmes Maini & McKee Associates
Eastern Connecticut State University, Comprehensive Master Plan
Willimantic, Connecticut .... p. 224

LANDSCAPE

CITATION

GMB Architecture + Engineering
Grand Rapids Community College, Vegetated Roof
Grand Rapids, Michigan ....p. 225

"The link between the indoors and the new outdoor courtyard enhances both spaces."
—2009 jury



OUTSTANDING LANDSCAPE ARCHITECTURE

Lose & Associates, Inc.
Middle Tennessee State University, Multimodal Transportation Master Plan and Streetscape Enhancements
Murfreesboro, Tennessee .... p. 226

Pressley Associates Landscape Architects
The Wheeler School, East Campus Landscape Enhancements
Providence, Rhode Island .... p. 227

San Fanandre Justin Architects
Purchase College-State University of New York, Campus Center Plaza Rehabilitation
Purchase, New York .... p. 228-229

Visit SchoolDesigns.com.

Tallahassee Community College, Campus Master Plan

Tallahassee, Florida



EMO/ARCHITECTS, INC.

Design team:
Warren A. Emo, AIA, NCARB, CGC, Principal-in-Charge; L. Gerald Dunn, AIA, NCARB, LEED AP, Senior Design Architect ; Bonnie K. Johnson, AIA, NCARB, LEED AP, Project Manager

Client:
Tallahassee Community College; William D. Law Jr., President

Area:
2,310,265 sq. ft. (building area); 9,446,042 sq. ft. (site area)

"Creative solution to flooding and stormwater control, while expanding the college's pedestrian zone."

—2009 jury

The Tallahassee Community College campus master plan employs a harmonious blend of form and function by adhering to the following sustainable, urban and interactive architectural design principles: create a predictable master plan centered on an efficient infrastructural system that enables program flexibility by integrating environmental systems with the campus' spatial system; optimize land resources while maintaining the campus scale of development; maximize pedestrian access for an improved walking campus; create a vibrant environment for social and academic interaction; extend and enhance the garden landscape that characterizes the unique environmental qualities of the existing campus; and create a sustainable master plan.

Situated on a flat former airport site, the college faces significant site issues, including periodic flooding. This master plan seeks a new approach that conceives the future campus as an integral, sustainable part of the eco-management system while being a vibrant place for learning, interaction, recreation, nature and delight. At the heart of the master plan is the idea of a campus organized around a simple framework of pedestrian open-space axes, integrated with an innovative stormwater system that is an eco-amenity. The garden landscape is amplified while the urban density and street character is enhanced to make an environment rich in variety that appeals to the full range of human needs and experiences.

This campus master plan represents a sustainable site that is designed to recognize the interrelatedness of natural systems, as well as those created by man.









Tyler Junior College, Comprehensive Campus Master Plan

Tyler, Texas







LEGEND

1. Proposed 230-bed residence hall
2. Proposed parking structure
3. Residence-life building
4. Campus services
5. Bookstore
6. Grace building
7. White administration building
8. Tech center
9. Proposed science building
10. Proposed allied health and nursing building
11. Proposed baseball field
12. Rogers Student Center
13. Jenkins Hall
14. Proposed academic building
15. Proposed library building
16. Student center expansion
17. Proposed fieldhouse and concessions
18. Physical plant
19. Proposed football stadium
20. Proposed future parking
21. Applied studies and academic building
22. Proposed performing-arts building
23. Wagstaff Gymnasium
24. Health and physical-education building
25. Tyler Museum of Art
26. Proposed band hall
27. Murphy Tennis Complex
28. Satellite plant
29. Strength and conditioning
30. Ornelas Residence Hall
31. Fieldhouse
32. Hartley Complex and concession stand
33. Proposed maintenance building
34. Proposed campus-safety facility
35. Proposed alumni building



Site plan

Randall Scott Architects

Design team:
Randall B. Scott, AIA; Greg Conaway, AIA; Edward Bailey, AIA

Client:
Tyler Junior College; Mike Metke, President

Area:
1 million sq. ft.; 105 acres

Total cost:
$123,050,000 (includes six new buildings and four renovations of current buildings; represents construction cost estimates only and does not include escalation, professional fees, technology, security, FF&E or other soft costs)

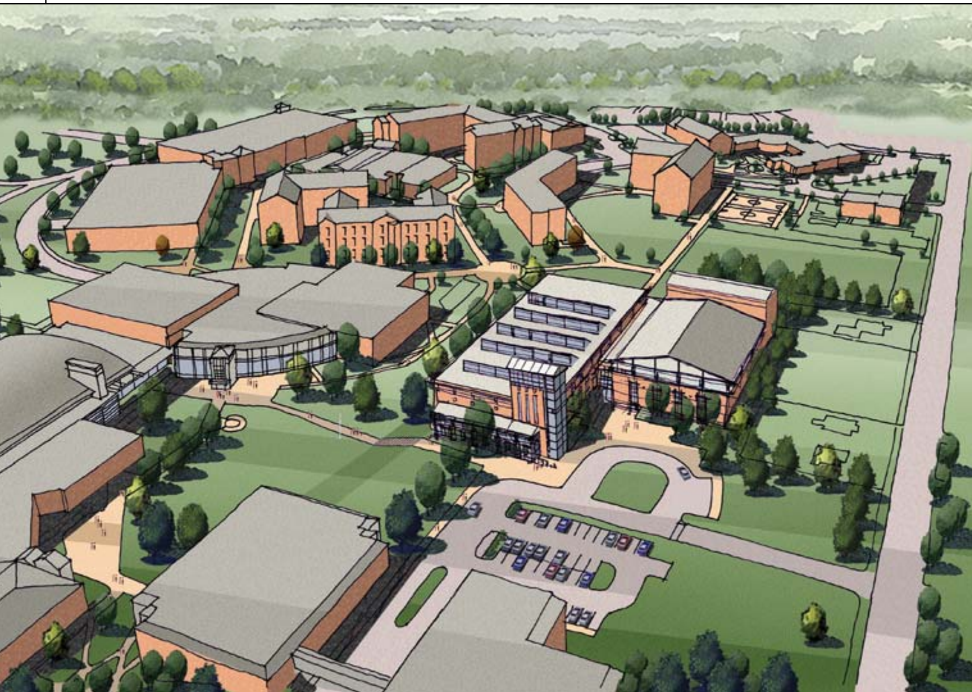
Tyler Junior College (TJC) commissioned the architect to prepare a campus master plan and facilities assessment. A 12-phase comprehensive master plan will reinstate the original campus quad and add a 3.5-story Georgian/Colonial bell tower for orientation and social purposes at the center. This requires relocation of the existing library and conservatory buildings.

Around the quad, four new medium-density academic buildings and a replacement library were proposed. Clustering medium-density academic buildings around an open quad and demolishing outdated low-density buildings free up valuable real estate on which to construct new parking structures, residence halls, a performance hall and sports venues (currently being leased from off-campus entities), all of which will contribute significantly to prolific campus life.

This all will be accomplished without purchasing any additional land. The plan creates a dynamic hub of student activity, replaces non-heritage structures with homogenous architecture, and provides state-of-the-art pedagogic facilities.

The TJC comprehensive campus master plan outlines sustainability initiatives to which all future construction must adhere, including LEED certification goals for new construction, additions/renovations and interiors.

Eastern Connecticut State University, Comprehensive Master Plan · *Willimantic, Connecticut*



Symmes Maini & McKee Associates

Design team:
Mark J. Zarrillo, FASLA, AICP, Project Director/Campus Planner; Robert C. Hicks, AIA, LEED AP, Project Manager; Alex C. Pitkin, AIA, Project Architect; Laura M. LeClair, RLA, AICP, LEED AP, Landscape Architect

Client:
Connecticut State University System; Elsa Nunez, President

Area:
1.2 million sq. ft.

Total cost:
$496,821,590 (estimated capital development plan for the planning period of 2007-2017)

The comprehensive master plan for Eastern Connecticut State University outlines strategies for establishing the school as Connecticut's leading public liberal-arts university. To create spaces to foster campus involvement in a 5,137-student school, the plan for the 182-acre campus included building assessments, program evaluations and relocation opportunities, a capital-development program and a master plan for 2017.

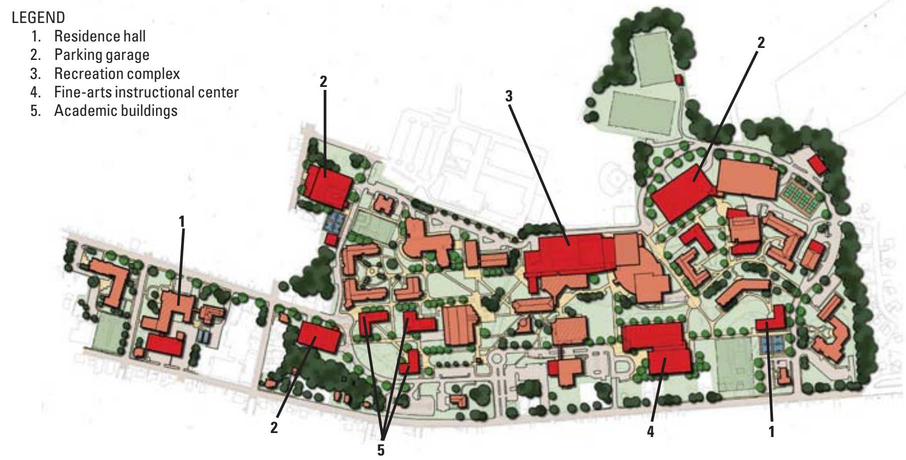
The new plan addresses:

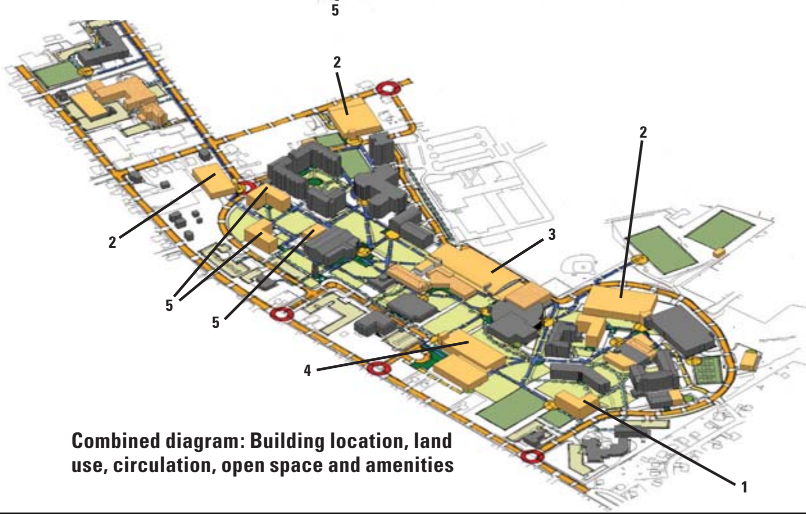
•Situating new buildings, including a new fine-arts instructional center; new residence halls; sports center expansion; dining hall expansion; and parking structure.

•Reorganizing vehicular circulation from the campus interior to a perimeter loop road to create open space and new campus quadrangles, and improve pedestrian circulation.

•Providing additional recreation fields.

•Unifying the south campus with a focused academic core.





Combined diagram: Building location, land use, circulation, open space and amenities





Grand Rapids Community College, Vegetated Roof

Grand Rapids, Michigan





GMB Architecture + Engineering

Design team:
David Wilkins, AIA, NCI, Vice President; Tim Gerrits, RLA, ASLA, LEED AP, Principal

Client:
Grand Rapids Community College; Steven C. Ender, President

Area:
21,000 sq. ft.

Total cost:
$538,000 (construction, general conditions, A/E fees and costs, furniture)

Photographer:
Bill Lindhout Photography

Grand Rapids Community College (GRCC) commissioned the architect to design a 21,000-square-foot vegetated roof on the second level of the 20-year-old Applied Technology Center building. The project also renovated a plaza, incorporating the same green roof technology on the first level of the building, with a goal of enhancing an "al fresco" dining experience for the Secchia Institute for Culinary Education program.

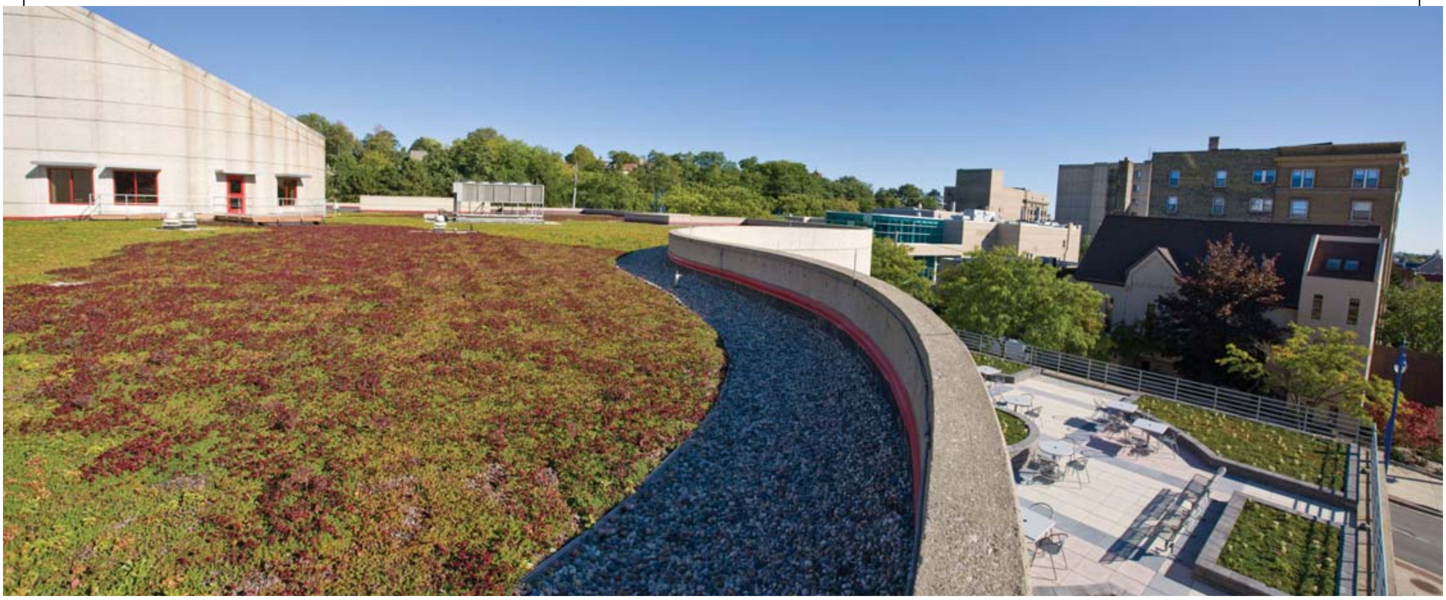
Pre-vegetated roof modules were selected for the basis of the roof design. New windows, door access and an observation deck also were added to the project to create maximum contact and viewing. Additionally, educational plaques on the roof and plaza graphically demonstrate the roof system and provide explanations of plant types and colors.

The vegetation design for the second-floor roof area was derived from the circular shape of the building's three-story atrium. Three sedum mixes were used to enhance the radial pattern of the design. The plaza area incorporates raised landscape block planters filled with the same vegetated module tray system.

"The link between the indoors and the new outdoor courtyard enhances both spaces."
—2009 jury







Middle Tennessee State University, Multimodal Transportation Master Plan and Streetscape Enhancements · *Murfreesboro, Tennessee*







Lose & Associates, Inc.

Associated firm: RPM Transportation Consultants, LLC

Design team:
Mike Wrye, PE, LEED AP, Project Manager; David Lose, FASLA; John Shields; Michael Black, EIT

Client:
Middle Tennessee State University; Patti Miller, Assistant Vice President, Campus Planning

Total cost:	Completion:
$11,478,585	August 2008

In 2004, a project team led by the architect began working with Middle Tennessee State University to develop a master plan that would improve traffic safety, circulation and parking conditions in and around the campus. In August 2008, Phase I and II construction of the parking and transportation improvements were completed. Specific goals included providing parking for a future enrollment of 30,000 students; creating a more pedestrian- and bicycle-friendly environment with an emphasis on enhanced shuttle service; improving safety and circulation for vehicles, pedestrians and cyclists; and enhancing the aesthetics of the campus.

Educational program requirements:

•Address problems associated with parking and transportation on the campus, which has the largest undergraduate enrollment in Tennessee.
•Relieve traffic congestion on campus.
•Promote pedestrian access and activity.
•Safely accommodate bicycle and vehicular circulation.
•Beautify the campus.

The plan evaluated parking and transportation needs and identified key issues, and developed plans to address them; and assisted the university in prioritizing projects to address immediate needs while coordinating with plans for future campus improvements and expansion.

Roadway cross-sections and layouts provide safe and efficient access to all users (general traffic, campus shuttle buses, bicycles and pedestrians) while maintaining low-speed characteristics that are critical in a campus environment.

Streetscape improvements enhance the user experience along campus transportation corridors, including street trees, plant materials, pedestrian-scale lighting standards, bollards and site furnishings, specialty paving patterns and monument signage at campus gateways.



The Wheeler School, East Campus Landscape Enhancements
Providence, Rhode Island









Pressley Associates Landscape Architects

Associated firms: E. Turgeon, Construction Manager; Geisser Engineering, Consulting Engineer

Design team:
William Pressley, Principal-in-Charge; Jay Emperor, Project Manager; Darl Johnston, Landscape Designer

Client:
The Wheeler School; Dan Miller, Head of School

Area: 63,250 sq. ft.	**Total cost:** $1 million (construction)
Cost/square foot: $15.80	**Completion:** August 2007

Photographers:
The Wheeler School; Jay Emperor/Pressley

The design creates inviting gathering spaces and new recreational, play and outdoor meeting spaces to strengthen the campus environment of this 120-year-old private school.

Wheeler School's East Campus consisted of underutilized open space and tennis courts. The landscape architect redesigned this space to include a basketball court, synthetic lawn area, amphitheater-like seating, space for outdoor teaching, a new outdoor reception space for small events, lush landscaping along new pathways and foundation plantings at two school-owned residences, as well as an expanded faculty parking area.

By installing a synthetic lawn play area, the recreation season is extended beyond that enabled by traditional grass. Nice weather in early spring and late autumn enables students to play outdoors.

Materials such as brick and bluestone walls, classic black metal fencing, and large caliper trees are used throughout the site to strengthen the character of the school and unify the East Campus with the main Center Campus. Nestled into a beautiful residential area, the park-like setting blends seamlessly into its surroundings.

Purchase College-State University of New York, Campus Center Plaza Rehabilitation · *Purchase, New York*





Existing area

Originally conceived by the campus planners as the "Great Court," the college's academic buildings are situated around the library and bookstore and are linked by covered walkways that define the campus center plaza. Each building is surrounded by a series of open spaces and pedestrian streets, which reinforces the building connection to the plaza. The campus center plaza is defined by the modern architecture and brown brick that dominate the campus. Portions of the plaza are above occupied spaces, making it a de facto roof.

The goal was to stop the surface flooding and chronic leaks into the occupied spaces below the plaza. Purchase College saw the plaza rehabilitation as an opportunity to re-evaluate the surface treatments and drainage methodology. The challenge was to create a more humanistic and inviting environment while respecting the vision of the original campus architect.

The scope of work includes removing and replacing the existing pavement, waterproofing, drains and piping required to restore a fully functioning drainage system. Newly created planting beds will define walkways, areas of interaction and seating. Aesthetically, the landscape design will be a significant asset for the plaza. The plans will create maximum seasonal diversity and introduce a variety of colors to the plaza.

The Campus Center Plaza improvements include several green initiatives: 4,000 linear feet of existing granite paving will be reused as curbing; and the amount of pavement will be reduced by 25 percent and landscape increased by two-thirds, improving water quality and decreasing runoff by filtering the rain water through the planting beds. Enhancements will include new pavements, new site furnishings, improved landscaped areas and lighting upgrades.

San Fanandre Justin Architects PC

Associated firm: Mathews Nielsen Landscape Architects

Design team:
Jeanne San Fanandre, Craig Justin, Steve Garrigan, Signe Nielsen, Robert DeMarco, Meghan Montgomery, Martin McDermott, Christopher Gavlick

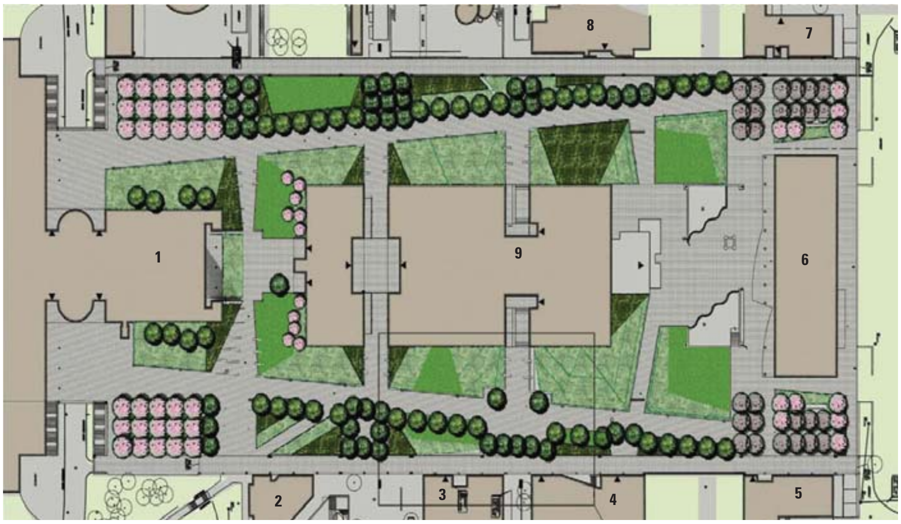
Client:
Purchase College-State University of New York; Thomas J. Schwarz, President

Area:
280,000 sq. ft.

Total cost:
$20 million (includes design services of $2.6 million, which includes basic fee, reimbursables, estimates, schedule and site rep during construction, and construction costs of $17.6 million, which include base costs, change-order contingency and Department of Labor enforcement fees)









Existing area

LEGEND

1. Performing-arts center
2. Visual arts
3. Neuberger Museum
4. Humanities
5. Student Center south
6. Student services
7. Student Center north
8. Social sciences
9. Library



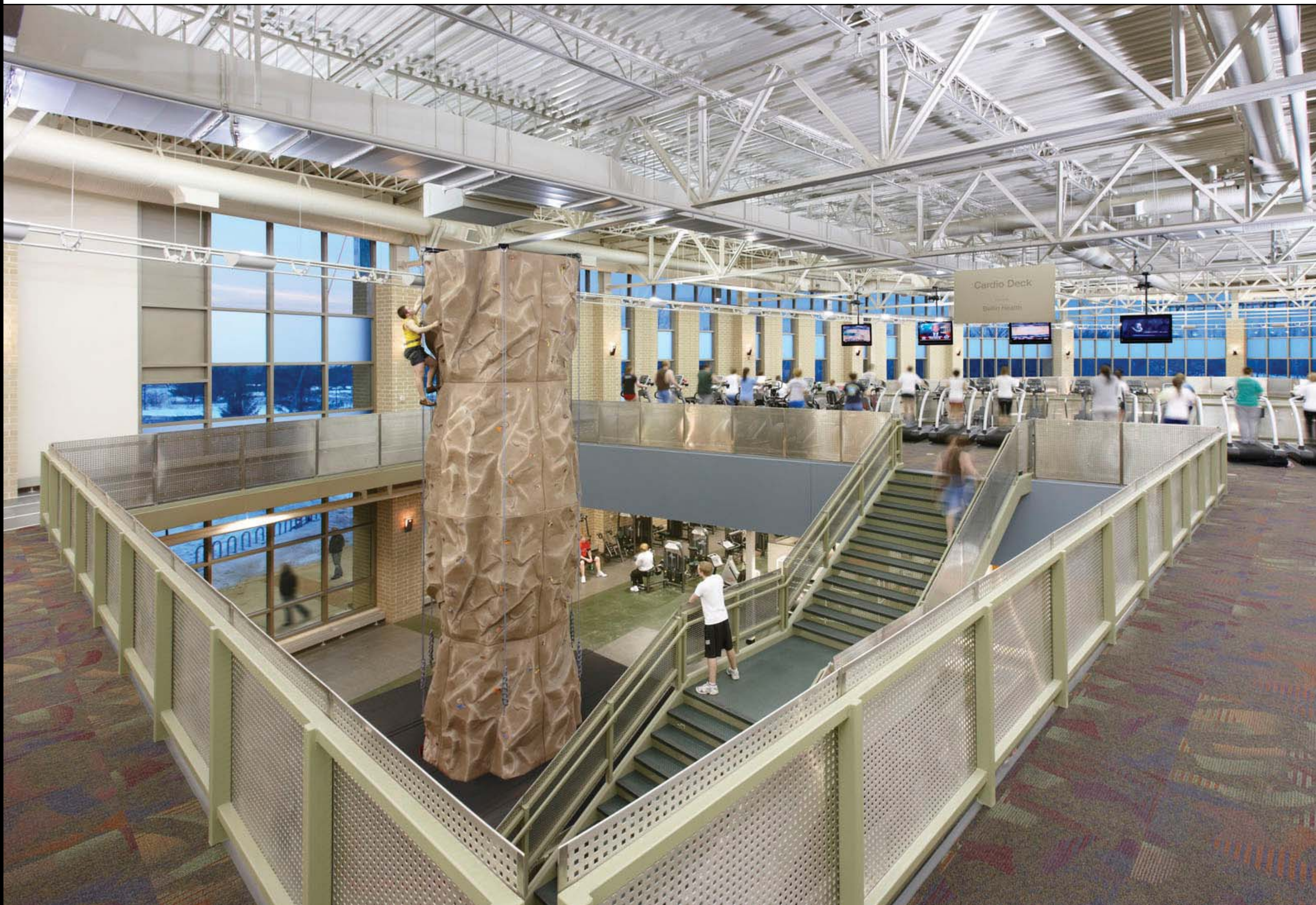
CONSTRUCTION GUIDE

CONTENTS



A special section in

AMERICAN SCHOOL & UNIVERSITY



University of Wisconsin–Green Bay, Kress Events Center. Photo courtesy of Nels Akerland Photography

Green at the Forefront

Keeping green in mind from the beginning of a design process can pay big dividends.

By Troy Sherrard

The statistics and benefits of sustainable or green building design are well-known, making it clear that this is not simply a trend. As technologies and materials evolve, the game of going green is continuing to expand. This green design "playing field" includes everything from budgets, project schedules and the marketplace, to the behavioral decisions people make. In today's economy, environmental building design is more critical than ever. Sustainably designed buildings can reduce energy use by 24 to 50 percent, carbon-dioxide emissions by 33 to 39 percent, water consumption by 40 percent, and the amount of solid waste going to landfills by 70 percent.

In light of these numbers, preserving resources and reducing the environmental footprint should be at the forefront of design decisions. It's time we treat our environments and train our buildings as we would our own bodies; not one muscle or one part at a time, but holistically. Sustainability, or environmental building design, is a whole-building approach that requires collaborative and innovative design for everyone involved.

Sustainable building design is a team sport. The days of a solitary genius working alone has given way to team design—more minds focused on solving design problems with the whole building in mind, not just on their respective trade or expertise. This open-minded attitude is what one should look for in selecting a design firm for a green project.

To play a winning game, the players of a team must be linked in a common goal, generating synergy through a coordinated effort. Note that a group by itself does not necessarily constitute a team. This also can be true of those involved in a sustainable building design project—owners, users, students, code officials, design professionals, construction managers and contractors. This makes it imperative to align goals and objectives before a project begins. Design teams typically establish goals by participating in a series of eco-workshops or green charrettes.

Conditioning for sustainability

Ninety percent of what makes a project green happens in the first 10 percent of the process: the design. This applies to new buildings, additions and renovations. Focus initially on strategies that affect the design, and keep layouts flexible. Take advantage of new and developing technology. For example, focus on providing abundant, glare-free daylighting to reduce the need for artificial lighting (and the associated cooling costs).

One of the keys to the process is abandoning the habit of "what worked last time." Design teams need to rise above the plateau and focus on sustainable methods that seek improvement; after all, being "less bad" does not always equate to being good. Ultimately, go beyond "neutral" and strive for regenerative design—with the underlying goal of "leave it better than you found it."

The rules of the "green game" vary. The 2030 Challenge is one initiative adopted by the U.S. Conference of Mayors and the American Institute of Architects (AIA) to advocate the incremental reduction of fossil-fuel dependency and achieve carbon neutrality by 2030. Carbon-neutral simply means not using fossil fuels for energy. For a frame of reference, in 2007, 86 percent of the U.S. energy consumption was from fossil fuels; renewable energy sources (solar, hydroelectric, geothermal, biomass and wind-generated power) accounted for about 8 percent of U.S. energy consumption, according to the U.S. Department of Energy.

Using the tools

Many green rating tools are available, such as the Living Building Challenge, BRE Environmental Assessment Method, Green Building Initiatives, and Green Globes. LEED (Leadership in Energy and Environmental Design) is the most commonly applied initiative in the United States, comprising prerequisites, credits and varying degrees of certification. All of these rating systems focus on the same critical areas: sustainable sites



Using primary exterior materials from local masonry resources on the Kress Events Center reduces environmental impact. Photo courtesy of Nels Akerland Photography

and planning, water efficiency and management, energy and atmosphere, materials and Resources, indoor air quality, and innovations/new ideas.

Building information modeling (BIM) is a developing technology used to study, analyze and document building design ideas. These working models enhance team collaboration and information sharing. The models also can be used with other software for further design study. For example, the early design of facility can be analyzed for daylighting/footcandles in each space of the building. This information then can be used to optimize the daylight by altering windows, room sizes or building layout and orientation. This simulation can be developed in just days, and the final design is more responsive to the environment. ■

Sherrard, AIA, LEED AP, NCARB, is a project design manager and associate principal at Moody•Nolan, Inc., Columbus, Ohio. He can be reached at tsherrard@moodynolan.com. The firm designed the Kress Events Center (see sidebar).

A green beacon

The new Kress Events Center at the University of Wisconsin—Green Bay upgrades an aging recreation center. The renovation, repurposing and integration of the existing facilities are considered the ultimate form of recycling by reuse. They eliminate demolition waste going into landfills. Situated in the southeast athletics quadrant of the university, the building has a presence to the outer ring road and therefore becomes a "gateway" from the south. The facility was built for about $28.5 million, including 175,000 square feet in additions.

The buildings' program is broken into two components: a new recreation component adds ample fitness space with a suspended running track, group exercise and basketball court to the existing basketball courts and pool. A new women's basketball and volleyball performance space with a bowl configuration provides maximum home-court effect. The entire athletics program offices also are housed in this area. The recreation component is situated on the north side, which is more convenient to daily student foot traffic. A spacious, well-lighted north-south concourse encompasses all of these components together in one facility.

Using primary exterior materials from local masonry resources reduced environmental impact. Curtainwalls with high-performance glazing systems are energy-efficient, and light-colored material roofs and canopies reduce the heat load on the building. The interior features stained-concrete floor patterns and exposed ceilings, which eliminated the need for finish material resources to conceal them. All active interior spaces have plenty of clerestory or borrowed light to maximize use of daylight and reduce artificial lighting loads on building. The casework and main control desk are made of wood substrates that are from sustainably managed forests and are FSC (Forest Stewardship Council)-certified.

The majority of the site is surrounded by wetlands that were protected throughout construction and enhanced by the landscape design. The areas adjacent to the entry have large landscaped public plazas that have been planted with native grasses and shrubs in an effort to restore natural habitat.



A new women's basketball and volleyball performance space with a bowl configuration at the Kress Events Center provides maximum home-court effect. Photo courtesy of Nels Akerland Photography



The exterior of Kingdom School, Saudi Arabia, makes a statement of new educational learning and delivery. Photo courtesy of Omrania & Associates

Global Ideas

Do school designs support global education reform initiatives?

By Paul W. Erickson

The global impact of competition in education is prevalent. Nations are advancing education reform through government policy to achieve learning outcomes relevant to new economies, support high-quality learning environments, and promote learning readiness with early-childhood education. Developing nations are bringing up a new generation of well-educated students to compete globally.

Do school designs support global education-reform initiatives? Advancing nations seek U.S. assistance to design facilities that support education reform. Just as the U.S. economy has served as a model for other nations to emulate, so is the pattern with school design. Economic and development organizations provide another perspective, placing the United States 18th in high school graduation rates among 36 nations examined. U.S. math and science test scores for 15-year-olds have dropped

the past three years. Still, school designs in the United States are viewed by the world as supporting and enhancing global education reform.

Our children will graduate into a world very different from today. Rapidly changing economies, technologies and societies are connecting the world more than ever. New skill sets in global knowledge are needed that go beyond math, reading and science basics. Governments, businesses and education institutions understand the need for global competency. U.S. education is resilient, flexible and adaptable; likewise forward-thinking school districts desire adaptable and flexible facilities.

International awareness

Developing countries are advancing in performance, especially in primary and secondary education; parents, teachers and communities emphasize education as the pathway to a better life. Nations are re-evaluating education policies and curricula to compete globally, and staff development places more emphasis on global content. Higher-education mobility has become the product of global emphasis in primary and secondary education. The number of mobile students has risen dramatically in the early 21st century. In 2007, the United States, United Kingdom, France, Australia and Germany hosted 58 percent of the world's mobile students (the United States hosted nearly one-third) with emphasis in business, science, engineering, manufacturing and the arts. China annually has more than 400,000 people studying overseas, according to UNESCO's Global Educator Digest 2009.

Nations recognize long-term benefits of education and look internationally to benchmark education systems and policy changes. The Organization of Economic Cooperation and Development (OECD) enables nations to compare performance of education systems worldwide.

In the 20th century, a highly



Jordan is reforming its educational system and involving parents, students and communities to participate in the design of new school buildings to support the nation's educational paradigm shift. Photo courtesy of CDM International

Jordan reforms education to compete in a global economy

The Hashemite Kingdom of Jordan is focused on improving public education so its workforce can compete in a global economy. Jordan has embraced initiatives of lifelong learning, responsiveness to the economy, access to information and communications technology, and high-quality learning. These initiatives create well-educated, broadly skilled, adaptable and motivated citizens. Jordan's economy is moving toward global competition.

The country's Education Reform for a Knowledge Economy (ERfKE) project, overseen by the Ministry of Education, will modernize the economy through four components:

1) Reorient educational policy objectives through governance and administrative reform.

2) Transform education programs and practices to achieve learning outcomes relevant to the knowledge economy.

3) Support the provision of high-quality learning environments.

4) Promote readiness for learning for early-childhood education.

World organizations support Jordan's ERfKE program by providing schools that are safe, modern and supplied with effective teaching resources. The project reduces classroom crowding; the reliance on inappropriate, rented facilities in poor condition; and double-shifting. It accommodates enrollment growth and improves facilities to support student-centered learning.

The Ministry of Education began ERfKE with a four-year process of rewriting curriculum, encouraging teachers to use technology to broaden student learning. Teachers facilitate learning, select resources and customize the introduction of topics. To support the new learning model, new school designs are being created.

As educational specifications and designs are developed, Jordan's demographics, history and culture are researched; architects, planners, education leaders, practitioners and Ministry of Education officials collaborate to design new schools to support Jordan's education reform.

qualified U.S. workforce transformed the nation into the dominant world economy. Now, most industrialized countries have caught up with U.S. high school graduation rates. For example, South Korea went from minimal ranking to obtaining the highest school graduation rates in the world. As U.S. student enrollment subsides, the workforce will shrink while other nations experience enrollment growth and expand their education systems and workforce.

Performance is not simply a matter of money. It is based on strategies supporting high standards, accountability and autonomy, strengthened teacher professionalism and personalized learning. It is reminiscent of the 1996 "Breaking Ranks" themes from the National Association of Secondary School Principals (NASSP). That report prescribed personalization, coherency, time and organization, technology, professional development and leadership as necessary shifts to advance teaching for the 21st century.

The knowledge economy

An obvious catalyst for education reform is information technology. E-learning strategies include teacher training, online curricular and learning portals, national communications programs connecting remote communities through fiber optics, and modernization of learning processes to encourage innovation and creativity. Creating computer labs and mobile access portals is a straightforward strategy to embed technology into new learning approaches. New school designs with voice, data, video systems and cabling or wireless infrastructure support e-learning. Schoolwide paging/intercom communications and electronic security systems help create safe learning environments. Students learning new technologies acquire information, perform research and communicate globally as required in a knowledge economy. Once e-learning is initiated, a learning paradigm shift occurs.

Advancing nations desire education modernization to further advance their standard of living.

The pedagogical paradigm moves from "teacher-controlled instruction" to "student-centered learning," and education reform begins: student-centered learning with diverse teaching methods in lieu of teacher-delivered instruction; specified learning outcomes with time variables in lieu of specified time with varied learning; discovery and understanding in lieu of knowledge transfer; choice, experimentation and risk assessment in lieu of a prescribed approach.

All these methods are supported by a variety of physical spaces beyond the traditional classroom. Students learn how to innovate by setting goals and using talents and creativity to follow their interests. They receive opportunities to define how to reach outcomes and are encouraged to look beyond textbooks to explore what is meaningful personally. Teachers have responsibilities to demonstrate innovation, creativity and variety in teaching, and students are given the freedom to select resources and vary the order in which topics are introduced to reach outcomes. Teachers are facilitators of learning instead of the source of knowledge, and give greater consideration to a student's learning needs.

New school models

The paradigm shift from instruction to learning occurs in school, at

home and in the community; it is ongoing and lifelong, and requires new school designs. Design models supporting new education delivery methods have emerged in the United States the past 10 years and are being emulated worldwide.

Class-size reduction and lower teacher-student ratios are manifestations of a shift from traditional instruction to student-centered learning; the trend is toward creation of a variety of learning spaces with access to technology. New design models support flexibility and different learning approaches via large-small group rooms, specialized labs, student-resource areas, gathering spaces, meeting rooms, staff development and planning areas, and spaces for community use. New designs emphasize community and student-services components, including health clinics, guidance and career centers, multipurpose community rooms, media centers and outdoor learning and physical-education areas. The new design models must support traditional self-contained classroom instruction, while engaging "rotation" or movement of students for interdisciplinary learning, pull-out programs, project-based curricula, teacher-student mentoring and varied learning approaches.

Because community interaction and lifelong learning are integral to education reform, spaces with technology access for community after-hours learning should be inviting, yet have controlled access for security purposes. With flexible and adaptable learning spaces, new trends in educational delivery can develop.

New design models promote healthful and safe learning environments through code compliance, security systems, indoor air quality and daylighting. Architectural and engineering systems emphasize sustainability, energy efficiency, low operation and maintenance costs, and higher quality for extending useful life. Fixtures, furniture and equipment must support the curriculum, and be age-appropriate and durable.

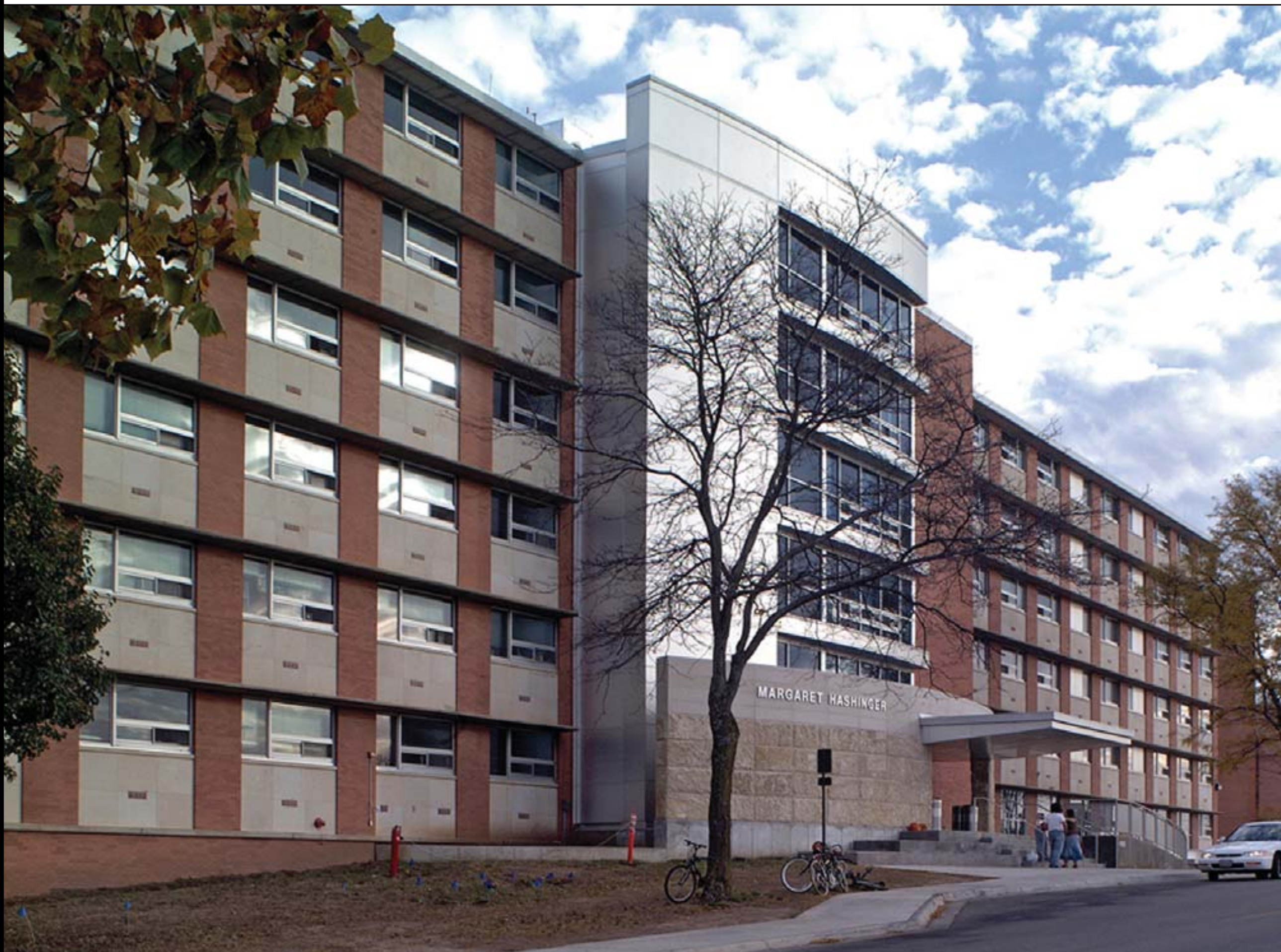


Schools in China illustrate the worldwide transition imbalance of phasing out traditional school buildings (large class sizes with no technology) to new designs with high-tech learning spaces, smaller class sizes and learning spaces that support education reform. Photo courtesy of Roger Giroux

Nations pursuing education reform seek unique school designs so students, parents, communities and other countries take notice of new teaching and learning opportunities. New design models look different from traditional schools; architectural design and landscaping are eye-catching; they draw attention and curiosity.

Advancing nations desire modernization to further advance their standard of living. The United States and other countries can offer many creative approaches for improving the education process. New school design models that are flexible and adaptable support this effort and bolster global education reform. ■

Erickson, AIA/NCARB/REFP, is president of ATS&R Planners/Architects/Engineers, a multi-disciplined firm specializing in preK-12 school planning and design, Minneapolis. He can be reached at perickson@atsr.com.



The renovated Margaret Hashinger Hall at the University of Kansas, Lawrence, has become the residence of choice for fine-arts students. Photo courtesy of Steve Swalwell/Architectural Foto Graphics

Stretching Dollars

Through strategic spending, it's possible to stay within budget and upgrade residential facilities to meet student expectations.

By Nadia Zhiri

Whether you're in the midst of executing a campus master building plan or just starting to upgrade those tired residence halls, dollars on most campuses are tight, and wish lists are long. Yet, it is possible to get a great return on even a limited investment. How? Sharpen your focus on six key areas that truly add value for—and attract—students.

•**Bathrooms.** Updated and more private bathrooms continue to be a trend on campuses. Yet, many older residence halls were designed with the opposite in mind. If you can't afford to fully reconfigure a building, concentrate your efforts on remodeling the bathrooms—that's likely to





A residence-hall remodel at Stephens College, Columbia, Mo., focused on areas that would be most immediate to student satisfaction. Photo courtesy of Steve Swalwell/Architectural Foto Graphics

Strategic focus, big impact

Remodeling an older residence hall can pose unique challenges, but it doesn't have to bust the budget. Two examples of how campuses tightened their focus to transform their buildings:

•At Stephens College, a private women's college in Columbia, Mo., the Georgian-style Wood and Columbia Halls had not functioned as residence halls for years. Growing enrollment prompted the school to use the buildings again as student housing. Campus leaders faced a double challenge: to affordably modernize the halls within the $5.2 million budget and to work within the limits posed by their status on the National Register of Historic Buildings.

The design focused on those areas that would be most immediate to student satisfaction. Single rooms were transformed into a group of two- and four-bed apartments or one- and two-bedroom suites. High-priority areas such as upgraded baths, new kitchens, computer labs and a fitness center made the halls friendlier to today's lifestyles. Transitional spaces got a makeover—new elevators, better lighting and updated interiors, including restoration of the original high ceilings. The halls, which are situated near one another on the campus quad, now house up to 155 upperclasswomen.

•On the campus of the University of Kansas, Margaret Hashinger Hall was a well-loved, but tired 1960s residence hall that had been built as a woman's residence hall, but in recent years had become the residence of choice for fine-arts students. The original design lacked the program spaces necessary to support fine-arts students.

Campus leaders and students wanted to retain the character of the building while making upgrades. In this case, bedrooms and bathrooms were left intact upon student request. Improvements were made across the building, but certain high-value areas were prioritized: interactive spaces, entry areas, technology relevant to fine-arts students and green design elements such as re-use of materials, improved daylighting and views to the outdoors.

Today, Hashinger Hall is a bustling arts community housing 385 students. A multipurpose theater with movable seating, a temporary stage, entry lobby and large storage areas serves as performance center, gallery and lobby. Acoustically separate music rooms, painting and textile rooms, a design resource center, dance studio, and conference and study rooms enable round-the-clock creativity.

Students socialize in an intimate lounge with a fireplace that reuses limestone removed from the pre-renovated Hall. On either side of the fireplace, doors open to the food-service deck, where diners appreciate panoramic views of the main campus.

provide the biggest bang for the buck in terms of student satisfaction.

When planning an upgrade, it's critical to understand usage patterns. If a majority of residents are starting their days around the same time, improve the ratio of showers to students and ensure adequate hot water for the capacity of the building. Upgrading fixtures and adding private changing areas adjacent to showers are two more ways that a bathroom renovation can improve the living experience.

New bathrooms also can potentially streamline custodial or maintenance operations; mitigate concerns over viruses, bacteria and mold; and contribute to sustainability goals by conserving energy and water.

•**Building entry areas.** First impressions really do matter. How people enter a building and what they see from the outside create its sense of identity. This building "brand" informs the perceptions of students, prospective students and parents about what they'll find inside, and about campus life overall. What can they see from the front door or windows? Is the building attractive? Is there energy and activity? Arranging heavy activity areas and social spaces in the front of the building, for example, sends a clear message that something interesting is going on within those walls.

Building entries also must take the practical into account. Pay attention to functional security and be sure to include a central reception area. The configuration of the entry—the wayfinding, the location of mailboxes, the feeling of safety—can help con-



The Hashinger Hall renovation created an intimate, comfortable lounge for students. Photo courtesy of Steve Swalwell/Architectural Foto Graphics

Providing adequate infrastructure and amenities for today's wireless lifestyle has become non-negotiable.

nect students to the goings-on within the building, making them feel at home and communicating a strong message of serving student needs.

•**Transition spaces.** In-between spots such as elevators, elevator lobbies, corridors and the doorway views into individual rooms rarely are discussed as must-haves. Yet, the path of travel through a building is, in essence, a series of "rooms," each with its own experience. Careful design of these spaces can affect student perceptions of a building significantly and improve its overall feel. In residence halls, it's often "all about the rooms," but when students have to take a rickety elevator and walk down grimy halls to get to that room, their experience of living in that space is diminished.

Just as a great social lounge improves the sense of community, so, too, do well-designed transitional spaces. If those places are situated centrally and pleasant to be in, students are more likely to stop and talk to one another. When designing or remodeling these spaces, look at visual rhythm, pattern and opportunities to add or reflect daylight or create views to the outdoors. Even simple fixes such as paint and changing out lighting can make a big difference. As a result, the building is perceived as a welcoming place that supports informal interactions and learning.

•**Green design.** Addressing energy goals and daylighting in the programming statement and adopting LEED standards may not save money upfront, but it will help create a building that works efficiently from the start. Going green doesn't always cost more, but when it does, paying upfront for better infrastructure and materials saves money on energy usage and maintenance down the road.

CONTINUED...





University of Kansas, Margaret Hashinger Hall.
Photos courtesy of Steve Swalwell/Architectural Foto Graphics

Green design, especially those measures that address indoor air quality and natural light, creates more healthful buildings, which can improve the physical and emotional health of occupants. According to the U.S. Environmental Protection Agency (EPA), poor indoor air quality is linked to an array of preventable illnesses such as colds, flu, headaches, eye irritation, allergies and asthma, and has been shown to hinder intellectual processing tasks such as logical reasoning, memory and creative thinking.

•**Technology**. Providing adequate infrastructure and amenities for today's wireless lifestyle has become non-negotiable. It may be a factor in whether a student opts to return to a residence hall.

For today's laptop-toting digital natives, technology is lifestyle. It shows in the trend toward residence-based "community learning centers," technology-rich spaces reserved for student study and group work. They might feature video-production equipment; access to community computers loaded with software that students are unlikely to own; projectors and screens; large-format printers; research assistance; learning programs and plenty of ports for students to plug in their laptops and collaborate—all available at a wide range of hours, if not 24-7.

To keep pace with the changes in technology, an education institution's technology infrastructure should be flexible enough to be adapted over time. While adding the new, be sure to audit items that may not be relevant anymore, such as phone jacks in student rooms.

•**Interactive spaces that promote learning and socializing.** If a campus values living-learning communities, then its buildings should support—not work against—that objective. That means living rooms, gaming rooms, small spaces for group study and performing-arts studios—small, multipurpose rooms that reflect the lifestyles of today's students. Although it may be easier to add these spaces in new buildings, interactive spaces also can be incorporated into interior remodel plans for older buildings (see sidebar on p. 240).

Community spaces enhance learning opportunities and create a common identity and culture. They establish shared interest and belonging, factors that have been shown to make people happier in their environment. In extensive research on the psychosocial effect of building environments, Judith Heerwagen has illustrated that people thrive in places that facilitate spontaneous social encounters and information-sharing, and where there is a balance between private spaces and those that encourage interaction.

In today's economic climate, schools can't do it all, but with smart spending, they can enact transformational changes on a limited budget. The goal is to create attractive spaces where students can live and learn—places where they will stay and thrive. ■

Zhiri, AIA, LEED AP, is a principal and leader of the Student Life design studio at Treanor Architects, Lawrence, Kan. She can be reached at nzhiri@treanorarchitects.com.



University of North Texas, Chemistry Building. Photo courtesy of Charles David Smith

Minding the Gap

How to integrate design, capital funding and academic planning during a recession.

By Mark Dilworth

Education facility planners frequently face a gap between available funding for the construction of new facilities and an academic program's projections about the size of facility needed to meet future aspirations. Although many different circumstances and scenarios may cause this disparity, the path to reconciling differences can be achieved by carefully balancing present-day funding limitations with the anticipated physical design requirements of the facility.

In the current economic climate, more architects and construction managers may find themselves caught between what seem to be mutually exclusive goals. Some colleges already are halting construc-

tion projects until conditions in credit markets improve or additional grant funding can be secured. Designing a higher-education facility that accommodates today's needs while providing for—or at the very least, anticipating—a program's future needs still is essential. Even though funding for higher education is decreasing, the number of students seeking admission is expected to increase, creating yet another gap to bridge. But lack of funding shouldn't mean the end of construction planning. And more important, it shouldn't mean the size of a project must be compromised.

Several higher-education institutions of varying sizes and budgets recently have succeeded in bridging the gap between their capital funding limits and future academic planning goals. The following case studies illustrate how these institutions' objectives were achieved. Although the gaps resulted from different circumstances in each case, the architects carved out a similar path to reconciliation through solid design:

Gap 1: Funding delays

When it came time to design and build a new school of management for a mid-sized public research university, an overheated construction market and a lag between the appropriation of funding and the project's initiation led to a 20 percent gap between the $28 million budget and the desired program. The program called for a 200,000-square-foot building, but by the time the project moved forward, the funding could support construction of only 160,000 square feet.

Because the original budget was set at the height of a construction boom, the university dean, construction manager and architect shared a conviction that prices would fall as design and construction progressed. Each party felt that constructing a facility 20 percent smaller than the dean's original program goals would limit the development of the school and therefore, would be a mistake. The three parties worked together to find areas in the program that could be deferred for several years, in order to "free" up enough budgeted dollars to build an additional 40,000 square feet of shell space.

Just as the planning team had anticipated, construction pricing fell as the project was "bought out" over the course of the 15-month construction period. This made it possible to not only build the additional 40,000 square feet of shell space, but also finish it out completely.

Gap 2: Reallocated funds

About $21 million was appropriated for a new 107,000-square-foot home for the chemistry department at a large state university. After the architect was hired and schematic design was completed for the building, the university had an unanticipated opportunity to make a major acquisition of real estate. The campus planners decided to pay for part of the acquisition with about 30 percent of the dollars originally allocated for the chemistry building, which meant the chemistry department would have 30 percent less space for classrooms, labs and administrative offices.

The dean of the chemistry department believed that the original programming was essential for the department's future success. In working with the architect and construction manager, the team developed a plan to build the full shell building envisioned in the schematic design, but to finish out the interior space in two phases, including mechanical systems. The designers took great care to situate future areas that could be shelled in relation to the internal circulation of the building, so that the occupants of Phase I would not feel as though they were in an incomplete facility. To accomplish this task, the team created a temporary closure wall and left room in the mechanical systems for additional equipment to ventilate and cool future space. Within one year of occupancy of Phase I, funding was raised to complete the entire facility.

Gap 3: Campus visioning

Sometimes funding gaps can occur as a result of disparate campus visioning between university planners and academic program leaders. In the case of a rural public health school at a major state university, the dean believed that a 110,000-square-foot facility, including 69,000 square feet of office space, was needed to accommodate the academic program and its faculty growth. Funding for the project, however, supported just less than 90 percent of the dean's desired office program.

The architect's solution called for three distinct, but connected buildings, which included a 25,000-square-foot research laboratory building, a 15,000-square-foot classroom building and a 61,000-square-foot office building designed to accommodate the construction of an additional 8,000 square feet of office space in the future. It also created a bid-alternate in the drawings that showed the office building with the additional 8,000 square feet shelled in within a 69,000-square-foot structure. When the project was bid, the alternate was



Texas A&M University, School of Rural Public Health, College Station.
Photo courtesy of James Wilson

Even though funding for higher education is decreasing, the number of students seeking admission is expected to increase, creating yet another gap to bridge.

within the budget, and the larger office building was constructed.

As it turned out, the university didn't end up using all of the shell space for faculty offices, but instead used a large portion of it for a nursing-skills teaching laboratory and classroom. Although the shell space wasn't used for its intended function, it still provided the university with the flexibility for growth in an area not envisioned originally. This shows that no plan or vision can completely anticipate an academic program's future, but that filling additional flexible space is rarely a problem for university facility planners.

Gap 4: Build and they will come

When it comes to planning future research facilities, higher-education leaders may find themselves in a Catch-22: they can't attract the researchers without a new, state-of-the-art facility, but they can't raise the capital for the facility without attracting the researchers. Recently, a research campus at a regional medical school planned to build its fifth biomedical lab facility within an 11-building master plan. During the planning phase, it was determined that the fifth building's size should be based on available funding and the program's current enrollment. Realizing the capacity for expansion, the dean of the program did not want to stifle the potential for future growth by limiting the size of the new building.

Working closely with the dean, designers devised a plan to increase fund-raising momentum and build beyond current need. This "build it and they will come" solution centered on the creation of a generic laboratory layout. This plan enabled the shell building to proceed with design and construction before the specific users of the facility were finalized. Once the users are identified in the future, then detailed design would begin on their specific laboratories, within the parameters of the generic lab layout. This project was initiated when funding was available to complete the 12-story shell and finish out the entry level, mechanical floor and four of the 10 laboratory floors. Breaking the architectural design and planning into shell and finish out, and designing the shell and systems to accommodate incremental completion and occupancy of the building, enables the university medical school to leverage initial funding to support rapid growth. Building undedicated space also will facilitate recruitment of prestigious scientists and their research, with its associated funding.

Planning for change

Traditionally, university and college facilities have had clearly defined, fixed programs and matching budgets to accomplish program objectives. But if the economic downturn has taught us anything, it's that our world is a dynamic place with many moving parts. Change is constant. In the world of higher education, this phenomenon always is present as universities and colleges grow. Designing education facilities that balance today's limitations with tomorrow's possibilities may be one of the most important roles an architect plays. ■

Dilworth, AIA, LEED AP, is the design principal of Omniplan, a national architecture, planning and interior design firm, Dallas. He can be reached at mdilworth@omniplan.com.



The existing library and new addition at Gloversville High School, Gloversville, N.Y., receives natural light from two barrel-vaulted skylights. The libary provides space for simultaneous use by three class groups and serves as a meeting area for community functions. Photo courtesy of David Lamb Photography

One-Stop Design

Sole-source design and construction management can offer the advantages of design-build for school projects.

By Randolph J. Collins

Over the past 20 years, design-build has grown in popularity as a delivery method for non-residential construction projects among private-sector owners. They recognize the potential advantages of streamlined project management and single-source accountability, with associated improvements in project cost, schedule and quality. Yet, many education institutions still use the traditional design-bid-build methodology, awarding separate contracts to an architect, construction manager, and one or more separate prime contractors. In some states, legislation has prohibited public agencies from entering into a single contract with an integrated

design-build team.

When structured properly, a sole-source design and construction management (CM) relationship is a viable alternative. Some school project leaders who have completed projects using both traditional and sole-source design/CM methods have concluded that the latter project delivery method offers the advantages of design-build for public education projects.

Defining the terms

Most school administrators are familiar with the traditional design-bid-build approach to project delivery. Here is a look at the design-build, CM at risk, CM agency, and sole-source design/CM project delivery methods:

•**Design-build.** In a design-build project, the owner has a single contract with a design-builder. The designer-builder also holds the contracts with all subcontractors, and provides a turnkey project for the owner.

However, in some states, including New York, it is illegal for an integrated design-build entity to perform public work. Moreover, projects for public agencies must be bid competitively under at least four separate prime contracts, and the owner must manage these contractors' activities. The typical way around this barrier is for the owner to contract either with an independent architect or an independent builder to deliver a design-build project. The architect holds a separate contract with the builder for construction services; or the builder holds a separate contract with the architect for design services. The owner holds separate contracts with the prime contractors and manages their activities. However, most owners do not have the resources to perform this complex, specialized management task, so many owners prefer to hire a CM.

•**CM at risk.** The owner hires a CM and holds a contract with it to deliver a project at a guaranteed maximum price, or at cost plus a fixed percentage. The owner also holds a contract with an architect for design services. The CM holds the contract with all prime contractors; for that reason, CM at risk is not acceptable for public work in some states, including New York.

•**CM agency, a.k.a., CM as owner's adviser**. There are two methods of CM as owner's adviser. In one method, the owner holds separate contracts with the architect, CM and prime building contractors. The architect is responsible for coordinating its efforts with the CM, but the two have no contractual relationship. The CM is responsible for managing

the prime contractors on behalf of the owner. The CM's contract with the owner typically includes preconstruction services during the design phase of the project.

In the second method of CM as owner's adviser, the owner contracts with the architect to provide both design and CM services. The owner holds the contracts with all prime building contractors, and the architect/CM is responsible for managing the prime contractors during construction.

•**Sole-source design/CM**. This method takes agency CM a step further. In this project-delivery method, the owner contracts with an integrated architect/CM firm. Ideally, the firm is organized into two separate divisions—architecture and CM—staffed by professionals trained, licensed and experienced in the appropriate discipline. Each project is led by two project managers—the design PM and the construction PM—and the design and CM staffs work hand in hand to design and build the project.

One source

Sole-source design/CM has a number of advantages:

•**No learning curve**. Because these architects and construction managers have worked together on many projects, there is no learning curve. When two independent firms are involved in a project, either they are new to one another, or, if the firms have worked together, they may have little project experience with one another. It takes time and experience to mesh as a team.

•**Integration of preconstruction services**. A sole-source solution integrates preconstruction services into the process from day one. Early in the design process, the two PMs and their staffs begin planning project phasing and developing the schedule. This saves time compared with a typical CM project, in which the owner may select the CM firm late in the design phase or after the design is complete.

•**Independent construction cost estimator**. Often, the firm will engage an independent construction cost estimator on its CM team, who will take a fresh, objective look at its drawings, phasing plan and schedule, and prepare a detailed conceptual estimate early in the design process.

An independent CM firm could provide the same service; however, these often are general contractors that also do construction management. These firms may be proficient with the CM-at-risk project delivery method, which is similar to general contracting, but they may fall short

A phased renovation

Using sole-source design/CM, Gloversville Enlarged School District, Gloversville, N.Y., has completed the first three phases of a $60-million, four-phase program:

•Phase 1: New transportation facility.

•Phase 2: Renovations and addition to 183,000-square-foot high school.

•Phase 3: Renovations of two elementary schools.

•Phase 4 entails renovations of three remaining elementary schools. Another project, a $25 million athletic facility for the high school, also is planned.

The conditions of Gloversville High School were typical of schools constructed between 1959 and 1970; it had received few capital improvements in 20 years. Changes in program requirements created the need to enhance and expand instructional areas, and the aging building needed major renovations. Upgrades included new skylights and larger windows to increase daylight penetration into the building; replacement of mechanical, electrical, communications and security systems; and code-compliance work.

The addition accommodates larger science laboratories and more general classrooms. Three cafeterias situated around the building were converted to other uses, and a larger cafeteria was created. The art department was moved into two of the original cafeterias. This created larger instructional spaces, interconnecting storage areas and a large display area for student artwork. A new band room, instrument practice rooms and music classrooms were added to provide space for the expanding music curriculum.

The year-long planning process addressed a number of project challenges. To house the ninth and 10th grades for one curriculum year, the design team established temporary accommodations in the middle school, which occupies the same campus as the high school. This enabled the school to have greater flexibility during renovation and reconfiguration of the high school. As a result, the construction schedule was compressed by more than 14 months.

By addressing the new transportation facility in the first phase of the project, the district was able to reduce its operating costs sooner, saving $60,000 annually in direct costs. The district realized additional savings by reducing its bus fleet's total annual mileage by 25,000 miles and improving maintenance.

Moreover, the design/CM team's understanding and consideration of the district's properties and utility infrastructure enabled it to overcome significant construction challenges associated with the transportation facility's site, which was adjacent to federal and state wetlands, beyond the reach of public water and sewer services, and crossed by two high-voltage transmission-line easements. The solution involved provisions for alternative installation and delivery of utility services, including bringing services to the new site from the district's neighboring campus. As a result, the school district realized significant savings in costs and time.

when they perform an agency CM role. Typically, these CMs have an in-house estimator who normally develops bid estimates from a detailed set of plans and detailed quantity take-offs. When presented with conceptual drawings, they may distribute these to their mechanical, electrical and plumbing subcontractors and ask for estimates "as a favor." Like the CM's estimator, the subs' priority is bid-work. Often, each will return a single-page estimate comprising a few figures, and the estimator will incorporate these into an overall estimate. Because of the hand-offs, it may take four to six weeks to finish the estimate, and this leads to design delays.

In contrast, a professional estimator is dedicated to—and paid for—construction estimating based on conceptual drawings, and usually is able to turn around an accurate, detailed estimate in a week or two.

•**Constructability analyses**. An integrated approach also ensures that constructability analyses will be performed early in the process, when they can make a real difference.

•**Optimal number of bid packages**. Ideally, the design/CM team will prepare the drawings and specs for bidding so that each of the multiple prime contractors can bid separately for their scope of work. Not only does this satisfy the requirement for a minimum of four separate competitive bids (if there is such a requirement), it also provides a savings for the institution, which avoids paying a general contractor for its overhead and profit mark-up on each prime contractor's price. Working together, the design/CM staffs may split up the project into eight to 12 separate contracts to gain cost benefits and construction efficiencies. Similarly, the design PM and construction PM work together in the pre-bid conferences to make sure bidders understand the scope of the project.

•**No finger-pointing**. One of the most important reasons to use a sole-source design/CM firm is that it establishes a single point of accountability to the owner for design and construction management. At the end of the project, there is no finger-pointing between two separate entities.

Objection!

Some common objections to the sole-source project delivery method:

•"It's like the fox watching the hen house." Actually, because the architect is professionally liable for the project, it is in the sole-source design/CM firm's own best interests to make sure it is done right. If an owner trusts an architect to design the project, the owner should trust the firm to provide the CM services.

•"We like the checks and balances of a separate CM company." Good point. That's why it is ideal if the firm has separate design and CM divisions to provide checks and balances at each phase of the project—for example, the construction PM and the site representative performing quality-control reviews of the drawings at each design milestone.

•"Architects don't understand construction." Well, like any CM firm, a sole-source design/CM firm must be able to demonstrate its qualifications, experience and results. And this is another reason to hire a firm with separate divisions staffed by the appropriately trained and credentialed professionals. ■

Collins AIA, is a principal with CSArch Architecture/Construction Management, Albany, N.Y. He can be reached at rcollins@csarchpc.com or (518)463-8068.







Green Field





Notes

Sustainable-design principles put into action in today's education institutions.



Wind and solar systems are anticipated to produce 388 kBtu/year of energy and $11,390 of the annual operating costs. Photo: Maguire Photographics

Community response:
Sustainable elements utilized throughout Phelps High School were designed to enhance the curriculum. The HVAC lab features three alternative heating source units, which serve as practical maintenance trainers. Energy-efficient features serve as demonstration elements, enabling students to monitor energy output from the Earth, sun and wind. This "building as a teaching tool" approach teaches students and the community about the importance and benefits of this type of environmental responsibility. "We are not just teaching young people a trade," says Mayor Adrian Fenty. "We will teach them to learn, work and appreciate green-collar jobs."

Phelps Architecture, Construction and Engineering High School • Washington, D.C.

Architect: Fanning Howey

When planning this facility, what considerations were given to green products and processes?
LEED certification was a goal from the very beginning of the project. Sustainable elements were incorporated into the design, and sustainable practices ruled the design/build process. Waste was controlled by combining renovation with new construction, reducing the total amount of construction waste generation by more than 60 percent. Salvageable materials entered the recycling stream, reducing the need for new materials. The original building was restored, including woodwork, slate and terrazzo floors.

What are some unique green aspects of the facility?
Phelps will be one of the first LEED for Schools projects in the Mid-Atlantic. The building uses a rainwater cistern system to support the horticulture/landscape skills educational laboratory program and eliminate the need to use potable water for irrigation and in the greenhouse. Helical wind turbines reduce the school's dependency on fossil fuels. Photovoltaic panels double as architecture cladding elements, reducing overall system costs. A geothermal water loop under the sports field transfers heat from the building to the ground in the summer, and extracts heat from the ground to warm the building in the winter.

Pioneer Middle School DuPont, Wash.

Architect: DLR Group

When planning this facility, what considerations were given to green products and processes?
The architect led six design workshops, including an eco-charrette, to develop design goals and an integrated sustainable-design program. The project team also collaborated with educators over a span of eight months to develop specific means to incorporate the building as a tool in the educational experience. As a result of significant conservation measures, the Office of Superintendent of Public Instruction (OSPI) in Washington awarded the district a $350,000 grant to be a volunteer project for the Washington State Sustainable Schools Protocol.

What are some unique green aspects of the facility?
The new building enables students to make an immediate connection to a specific lesson. Outdoor learning courtyards adjacent to the classrooms enable students to monitor plant growth and rainfall, and explore composting concepts.

Interior and exterior signage demonstrates how the design reduced its environmental impact and how users can incorporate sustainable practices.

The building is positioned on its site to preserve and highlight Washington's oldest grove of Garry Oaks and their surrounding savannah. These unique and protected trees inspired the design of the library, which hovers above the commons like a treehouse.



A rain garden and infiltration ponds are valuable teaching tools at the middle school.

What was the community response to the project being environmentally responsible?
A comprehensive energy-management system monitors and controls resource consumption, and a touchscreen at the community entrance enables community members to examine seasonal effects and their own conservation efforts, as well as monitor the building's energy usage and resource consumption.

CTS CONTROL TECHNOLOGY AND SOLUTIONS

Lake Land College Campus Greening Master Plan







Low Environmental Impact

Below the garden in the background are 36 wells which make up Well Field #2. Once a well field is completed, the ground above can be reclaimed for other uses. Two more well fields are planned. Once completed, all campus buildings will be served by the geothermal system.

Lake Land College in Mattoon, Illinois, is well into the third phase of their five-year plan to become Illinois' first self-sustaining college by 2012 with a campus-wide geothermal system, solar systems and wind harvesting.

The college began the process in 2008 with installation of the central plant's 12-inch diameter heat pump diversification loop, running 3,000 feet around the circle-shaped campus perimeter. The closed loop geothermal heat pump system works by piping water deep into the earth via wells that capture the earth's heat in winter and dissipate heat in summer. Each phase of the project ties more buildings into the geothermal system along with other self-sustaining practices like solar panels to power closed loop solar domestic hot water systems.

Ray Rieck, Vice President for Business Services at Lake Land College and his associates are working closely with Control Technology and Solutions (CTS) of St. Louis, Mo., and CM Engineering of Columbia, MO, to achieve their carbon neutral vision. The improvements thus far are annually saving the school 58,000 kilowatt hours (kWh) of electricity and 42,000 therms of natural gas, for a carbon reduction of 290 metric tons each year.

"Our vision to utilize a geothermal system for our heating and cooling needs was rejected by large national companies due to the scale of the project. But CTS and CM Engineering were able to design and install a system to accomplish our goals and reduce our carbon footprint on the environment," says Rieck. "The work performed thus far enabled us to hold graduation this year in air conditioned facilities for the first time in the college's history. And best of all the air conditioning is being added without any rise in our carbon producing energy demand."

Founded in 1966, Lake Land College is a public community college serving 7,400 students that reside throughout 15 counties in East Central Illinois.

Circle 122 for more information ■ freeproductinfo.net/asu

CTS - Control Technology and Solutions
15933 Clayton Rd. #110 / St. Louis, MO 63011
t 636.230.0843 / f 636.230.5886 / www.thectsgroup.com

Lake Land College Campus Greening Master Plan







Lake Land College in Mattoon, Illinois, is well into the third phase of their five-year plan to become Illinois' first self-sustaining college by 2012 with a campus-wide geothermal system, solar systems and wind harvesting.

The college began the process in 2008 with installation of the central plant's 12-inch diameter heat pump diversification loop, running 3,000 feet around the circle-shaped campus perimeter. The closed loop geothermal heat pump system works by piping water deep into the earth via wells that capture the earth's heat in winter and dissipate heat in summer. Each phase of the project ties more buildings into the geothermal system along with other self-sustaining practices like solar panels to power closed loop solar domestic hot water systems.

Ray Rieck, Vice President for Business Services at Lake Land College and his associates are working closely with Control Technology and Solutions (CTS) of St. Louis, Mo., and CM Engineering of Columbia, MO, to achieve their carbon neutral vision. The improvements thus far are annually saving the school 58,000 kilowatt hours (kWh) of electricity and 42,000 therms of natural gas, for a carbon reduction of 290 metric tons each year.

"Our vision to utilize a geothermal system for our heating and cooling needs was rejected by large national companies due to the scale of the project. But CTS and CM Engineering were able to design and install a system to accomplish our goals and reduce our carbon footprint on the environment," says Rieck. "The work performed thus far enabled us to hold graduation this year in air conditioned facilities for the first time in the college's history. And best of all the air conditioning is being added without any rise in our carbon producing energy demand."

Founded in 1966, Lake Land College is a public community college serving 7,400 students that reside throughout 15 counties in East Central Illinois.

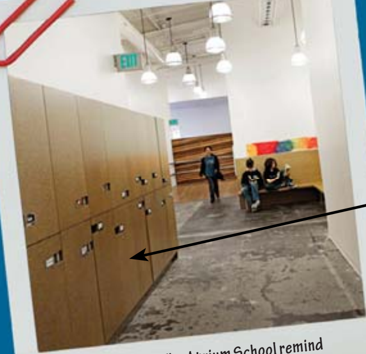
Low Environmental Impact

Below the garden in the background are 36 wells which make up Well Field #2. Once a well field is completed, the ground above can be reclaimed for other uses. Two more wellfields are planned. Once completed, all campus buildings will be served by the geothermal system.

Circle 122 for more information ■ freeproductinfo.net/asu

CTS - Control Technology and Solutions
15933 Clayton Rd. #110 / St. Louis, MO 63011
t 636.230.0843 / f 636.230.5886 / www.thectsgroup.com

The Atrium School
Watertown, Mass.
Architect: Maryann Thompson Architects



Everyday habits at The Atrium School remind students that their choices impact the world.

When planning this facility, what considerations were given to green products and processes?
Environmentally responsible values guided the design team from the first phase to the last detail. By choosing to renovate an existing industrial building, the school conducted the largest form of recycling, and each finish material selection prioritized recycled content. A new raised floor level admits daylighting and natural ventilation of the occupied spaces. High-efficiency lighting supplements these natural resources, and advanced mechanical systems provide healthy fresh air even in the winter, while saving energy through heat recovery.

What was the community response to the project being environmentally responsible?
The warehouse site occupies the middle of a mixed-use block. By renovating the building and reclaiming former paved areas for pervious landscaping, The Atrium School created a good neighbor for the industry on one side and residences on the other. Now parents, students, teachers and staff love the building they use every day, and the whole community is supportive of the new school in their midst. The greater community also has embraced the building with design and environmental awards, and publications sharing The Atrium School's ideas from Massachusetts to California.

What are some unique green aspects of the facility?
The experience of the Atrium student highlights many aspects of sustainable living. Every rainy day, students enter the building under a waterfall of rainwater collection so they can understand how their playground's grass stays green during dry weeks. From the recycled wheatboard lockers to dual-flush toilets, everyday habits remind the children that their choices impact the world around them. That world is present in each classroom through daylighting and cross-ventilation, keeping nature in the child's daily environment.

Macalester College, Leonard Center
St. Paul, Minn.
Architect: Hastings & Chivetta Architects

What are some unique green aspects of the facility?
Green architecture was a huge consideration for the project. Designers created an extremely efficient building by stacking spaces where possible to minimize exterior walls and roofing, thereby saving materials and reducing heat loss. The new facility also uses recycled materials throughout; elevators run on vegetable oil; windows are placed strategically to take advantage of natural light and heat; and the building's design allows for efficient heating and cooling.



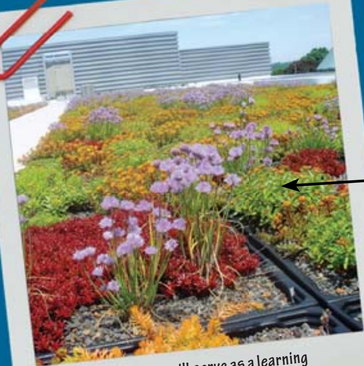
Windows at the Leonard Center are placed to take advantage of natural light and heat.

Recycling was a priority:

- About 90 percent of the previous facility got reused or recycled.
- The old fieldhouse was moved west of town to become a horse stable.

Facility goals:

- Enable students to pursue personal fitness, socialize and participate in recreational and varsity team sports.
- Enhancing the college's ability to recruit and retain students.



The plant specimens will serve as a learning environment for residents and the community.

What was the community response to the project being environmentally responsible?
In a supporting letter, Worcester's mayor, Konstantina B. Lukes, commended the institution on the city's first green roof and its ongoing efforts toward sustainability, also citing WPI's student involvement in the city's first major wind turbine installation at a local high school.

Congressman James P. McGovern, 3rd District, Massachusetts, also wrote, "The university further deserves to be congratulated for its very visible regional leadership and ongoing achievements with facilities sustainability planning."

Worcester Polytechnic Institute, East Hall Worcester, Mass.
Architect: Cannon Design

What considerations were given to green products and processes?
WPI's East Hall, intended as a model for all future green buildings on campus, embodies the institutional commitment to sustainable practices, supporting the school's academic mission while conserving energy and natural resources. All interior finishes and building materials were chosen for their sustainable merit in order provide the framework for all future campus buildings. Details such as the stormwater monitor and testing station in the ground-floor lobby educate students and the public about green design.

What are some unique green aspects of the facility?
The 4,800-square-foot palletized roof system, situated on 17,800 square feet of Energy Star roofing, was designed to be an experimental roof for educating students and conducting research in green roof technology. The roof has two water-monitoring stations built into the facility to help observe and document stormwater flow reduction and water-quality improvement issues generally associated with green roof technology.

The accomplishments of sustainability also are integral to the aesthetics of the building through the signage and wayfinding system. Each floor is themed with one LEED category subtly expressed in the room signage and aggressively featured as educational information in lobbies where students wait for elevators.

The New School, Fogelman Library at Arnhold Hall • New York, New York
Architect: Skidmore Owings & Merrill LLP

When planning this facility, what considerations were given to green products and processes?
Fogelman Library features recycled-surface countertops, made from post-industrial scrap waste, and bamboo flooring in the main reading room. All of the lighting systems and appliances meet Energy Star standards set by the EPA and U.S. Department of Energy. In addition to sustainable finishes, existing wood floors were reclaimed and reused in feature locations within the building.

Uninterrupted learning:

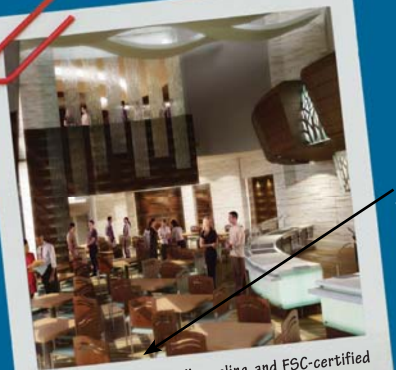
Phasing of the project kept the building operating throughout the construction process.



Lighting systems at the Fogelman Library meet Energy Star standards.

Certifiable!
Rubber flooring on the second, fourth and ninth floors fulfills all ISO 14001 environmental-management-system requirements and ISO 9001 quality-management standards.

Florida Atlantic University, Business Services Banquet Hall and Food Service Venue
Boca Raton, Fla.
Architect: Gallo Architects & Development Consultants, Inc., D.B.A. Gallo Herbert Lebolo



Bamboo flooring and wall paneling, and FSC-certified wood materials were specified for the dining areas.

What considerations were given to green products and processes?
The project's LEED-CI Platinum certification goal required close collaboration among the design team to ensure that conservation and occupant well-being goals would be integrated aesthetically with the functional design requirements. The design also supports staff and patron well-being, both through the use of low-VOC building materials and furnishings throughout, and through views of the restored wetland prairie habitat just beyond the exterior patio dining area.

What are some unique green aspects of the facility?
To make optimal use of the abundance of available daylight, the team developed an energy-efficient lighting design, using effective perimeter zoning and photosensor lighting controls that will ensure unneeded electric lighting is not in use during daylighted hours. Efficient plumbing fixtures are situated in the shared common restrooms. As an additional conservation contribution, the food-service design team specified water-efficient food-prep faucets and hand-wash faucets. Numerous recycled content and regionally manufactured products and finishes were selected. Low-VOC coatings, sealants and adhesives and non-urea formaldehyde wood products have been specified for use throughout. In addition, GREENGUARD furnishings were specified to safeguard the indoor air quality further.

Community response:
The university's community response can be summed up best by Karl K. Stevens, dean of the College of Engineering and Computer Science: "The college's green building initiative is to construct a facility that will be a showcase and 'living laboratory' for sustainable development and that will qualify for platinum-level certification in the Leadership in Energy and Environmental Design (LEED) rating system of the U.S. Green Building Council. This facility will be unique in the state of Florida and will provide, among many other things, a comfortable, healthy environment and good support space for faculty, staff and students."

Paradise Elementary School
Paradise, Pa.
Architect: EI Associates

When planning this facility, what considerations were given to green products and processes?
The opportunity to create a high-performance, environmentally friendly building that was better able to prepare for future energy needs was a driving force for the Pequea Valley School District. The new school is built on the 17-acre site of the existing Paradise Elementary School as a means of conserving natural land resources. The site design of the new building follows the slope of the existing topography for minimum disturbance of the land and has multiple levels to preserve as much open space as possible.



The vegetation, which is adjacent to the building, cools the microclimate through evapotranspiration.

What are some unique green aspects of the facility?
The main classroom wing is oriented on an east-west axis to take advantage of daylighting opportunities. Shared facilities are on the entry level, minimizing circulation space, and enable the gymnasium/cafeteria/auditorium space to be used easily by the community after hours. A ground-source heat-pump system with heat recovery for ventilation air systems, along with other energy-savings measures, enabled the school to achieve all 10 LEED credits for optimized energy performance. Water efficiency was another important consideration in the design of the new school. Through the use of rainwater harvesting, low-consumption fixtures, waterfree urinals and the use of recycled wastewater for irrigation, the building has achieved a water-use reduction of more than 40 percent.

What was the community response to the project being environmentally responsible?
The school has been featured on local newspapers and news channels as being a "showcase facility." The theme is "Respect for self; Respect for others; Respect for the world around us." The principal of Paradise Elementary says that great intentions and purpose were given to the design processes. The new school will be the first elementary school in Lancaster County, Pa., to achieve LEED gold certification and will be a focus of a green building education plan for the community.



The design of The Chapin School respects the past while sustainably embracing the future.

What was the community response to the project being environmentally responsible?

The school community was extremely responsive to the sustainable aspects of the project. A group of students formed an environmental committee and educated the rest of the school community about these aspects. They also prepared boards and presented at the Green Schools Alliance meeting, a nationwide organization of K-12 schools committed to the environment.

The Chapin School, Addition and Alterations
New York, New York
Architect: Marner Architecture

When planning this facility, what considerations were given to green products and processes?

The Chapin School was committed to sustainable design from the beginning, so the architect took a comprehensive approach to sustainability, from mechanical systems to finishes. All of the sustainable initiatives were maintained within the strict cost-control parameters of the project.

Unique green aspects of the facility:

- A daylight dimming system dims or turns off the light fixtures depending on the amount of natural light available.
- Finish materials, such as linoleum, carpet tile and toilet partitions, either have high recycled content or are made of rapidly renewable plant materials.
- Water-based paints, adhesives and sealants are low-emitting.
- Water-efficiency measures included harvesting rainwater for greenhouse irrigation, dual-flush toilets and metered faucets.
- On the exterior, two different types of shading devices control sunlight before it hits the low-e glass of the large operable window assemblies. The daylight diffusing glass in the transoms creates a milky stripe above the clear vision glass and provides an additional layer of glare-free natural light.

Middlebury College, Axinn Center at Starr Library and Biomass Facility • Middlebury, Vt.
Architect: CBT Architects

What considerations were given to green products and processes?

Instead of the LEED-required 500-mile radius, the project primarily utilizes local building materials within 50 miles of the Vermont borders, and renewable products and services for construction. Also, materials were harvested from the deconstruction of the 1960s library space for recycling or reuse on the historical Starr Library facade. The existing exterior marble facade from the 1980s addition was reused as compacted fill around the site. A substantial construction waste-management program was instituted for all materials not reused on the site, including copper, drywall and steel.

What are some unique green aspects of the facility?

The college believes quantity and quality of daylight and fresh air in the environment directly affect human welfare, especially during winter months. The design of the Axinn Center at Starr Library includes a light-filled, glass-enclosed winter garden and a landscaped, south-facing courtyard that provides ample southern light and auxiliary heating in the winter months; during the summer, a shading brise soleil protects the passage from direct southeast sun and its heat. The center ties into the college's central steam system as part of Middlebury's 2004 goal of the reducing carbon emissions to 8 percent below 1990 levels by 2012. The Biomass Facility is a cogeneration system powered by wood chips—a local, renewable, carbon-neutral fuel. This facility will cut the college's use of #6 fuel oil in half and put it close to achieving its initial carbon-reduction goal.



The biomass facility's central campus site brings heat and power into the public eye.

What was the community response to the project being environmentally responsible?

The Axinn Center at Starr Library is one of the most successful and heavily used in the college's recent building program because of the variety of learning spaces. The sunny Winter Garden is especially popular with students on this far north campus, where seasonal affective disorder is a very real concern. The Biomass Facility is more than a power plant. From the start, it has created opportunities for Middlebury students to develop urgently needed skills in energy research and planning. They join people in the community, including loggers, foresters, farmers and parts manufacturers, in creating a better energy future.



Vibrant tilework and wave-patterned terrazzo flooring offer durability and aesthetic appeal.

What was the community response to the project being environmentally responsible?
The city of Cambridge, known for its active and opinionated residents, seeks to be at the forefront when it comes to sustainability policy. This community's commitment to environmental responsibility is shown by its ambitious sustainability goals, including legislation requiring that all new and renovated projects undertaken by the city meet LEED silver criteria. The War Memorial Athletic Center is no exception: On the sustainable campus it shares with the city's public high school and main public library—both of which are undergoing LEED silver renovations—War Memorial holds its own.

Cambridge War Memorial Athletic Center
Cambridge, Mass.
Architect: HMFH Architects, Inc.

When planning this facility, what considerations were given to green products and processes?
Because this urban facility—open 14 hours a day and serving as Cambridge's central community athletic facility—is used so heavily, materials were selected for visual appeal and durability. Daylighting, including the reopening of clerestory windows over the pools—long since covered over— also improves aesthetics while reaping energy savings. Energy Star appliances were selected in place of their less sustainable counterparts, and FSC-certified wood was used for the new gymnasium floor.

What are some unique green aspects of the facility?
Because the architect also is responsible for renovations at the adjacent high school, the team coordinated cogeneration production of electricity to benefit both facilities. Waste heat from cogeneration will be used by school in winter and, in summer, by War Memorial for heating pool water and domestic hot water. Occupancy sensors improve efficiency in a variety of ways: carbon-dioxide sensors allow for adjustment of outside-air ventilation rates to suit actual occupancy needs; the variable-speed chiller matches cooling capacity to building load, using ozone-friendly refrigerant; and daylight sensors dim artificial lights when daylight is present. In addition, the site supports sustainable transportation options: it is mass transit-accessible, offers ample bicycle racks, and has on-site parking reserved for carpools and fuel-efficient vehicles.

Phoenix College, Fine Arts Building
Phoenix, Ariz.
Architect: DLR Group

When planning this facility, what considerations were given to green products and processes?
Sustainability was a central project goal, so green materials and resources were specified early in the design process. Local materials were emphasized to reduce transportation costs and support the local economy. Additionally, materials were selected based on sustainability criteria that included high recycled content, rapidly renewable materials and a low-VOC-emitting rating.

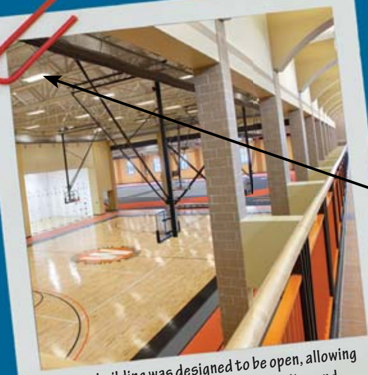
What are some unique green aspects of the facility?
Extensive daylighting on the north side of the building increases light throughout the entire building, but is of special interest to the painting/drawing studio where artists benefit from direct and plentiful light for their projects. In the pottery classroom, high-heat kilns were situated out of the interior spaces to enable outdoor ventilation to dissipate heat while using economical evaporative cooling systems to cool the space. This not only conserves operational costs, but also extends the life of the interior HVAC by reducing the load that would have been required if the kilns were inside.



The painting/drawing studio benefits from plentiful natural light.

Community response:
One of the college's goals was to set an example of sustainability for the community. This was achieved through a holistic design approach and incorporation of sustainable strategies. Because this project was publicly funded, it was important to communicate the outcome of this endeavor to the community and project contributors. A dedication gala was held to unveil the building to the public, making use of the outdoor patio adjacent to the art gallery for presentations and festivities. A dedication brochure was created to communicate project details and images to the public. Nearly 500 guests attended the event and the opening of the facility and its new Eric Fischl Art Gallery.

Wartburg College, Wartburg-Waverly Sports & Wellness Center • Waverly, Iowa
Architect: Hastings & Chivetta Architects, Inc.



The large building was designed to be open, allowing exterior views from deep within the building and daylighting to be carried into the building core.

When planning this facility, what considerations were given to green products and processes?

Although not applying for LEED certification, the architect implemented several sustainable initiatives in the planning of this project. The facility has a very tight, insulated exterior wall and roof construction. The building, although very large, was designed to be quite open. This enables exterior views from deep within the building. The openness also allows for daylighting to be carried further into the building core, which was helped by the addition of a clerestory window in the main concourse.

What are some unique green aspects of the facility?

•Durable, long-lasting materials require little maintenance.
•The interior spaces have individual lighting controls and occupancy sensors.
•Fluorescent lighting was used throughout the facility, even in the high-bay areas.
•The mechanical system is a high-efficiency system using central cooling towers and boilers, reclaimed heat from the pool dehumidification system to heat the pool, and a free winter air chiller.

Green footnote:

•All materials used in the building are VOC-free.

C.W. Morey Elementary School
Lowell, Mass.
Architect: Flansburgh Architects

What considerations were given to green products and processes?

•Emphasis on daylighting in classrooms, gym and library to reduce use of electrical lights.
•Building is organized to have longer south-north facades and shorter east-west facades to reduce heat gain from sun exposure.
•Exterior fixed sunshades on the south facade windows reduce heat gain from sun.
•Interior lights are on occupancy sensors.
•Mechanical system minimizes or eliminates ductwork by being sized for small repeated modules.



The structural system is exposed to reduce interior finishes.

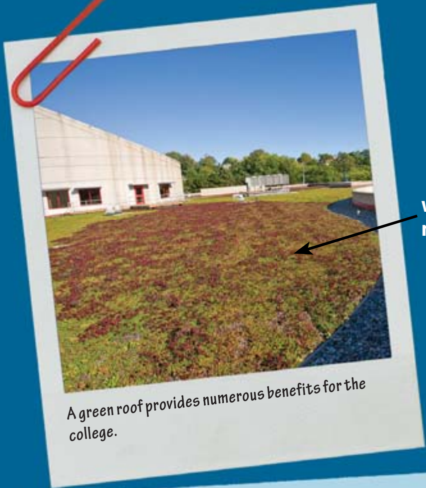
What are some unique green aspects of the facility?

The strategy early on was to minimize materials, reducing the amount of manufacturing energy, travel energy and material production that typically goes into a construction project. The structural system is exposed to reduce interior finishes. Ductwork, piping and wiring are consolidated to reduce runs.

Green footnote:

A green roof area provides some stormwater management next to a play yard.

Grand Rapids Community College, Vegetated Roof • Grand Rapids, Mich.
Architect: GMB Architecture + Engineering



A green roof provides numerous benefits for the college.

When planning this facility, what considerations were given to green products and processes?
The inherent nature of the vegetated roof project at Grand Rapids Community College was the desire to create a sustainable roofscape on a 20-year-old building and create a teaching tool for the community. The trays containing the plantings are made from recyclable materials, and the observation decks are made of Ipe decking, a recyclable wood material grown in sustainable forests.

What was the community response to the project being environmentally responsible?
This project was made possible through a generous gift from the Steelcase Foundation. It liked the idea that the roof would be designed using sustainable principles and would be a focal point to the college's sustainability council's goal to teach students as well. The plaza outside the Heritage Restaurant provides a new vegetated environment for dining, a popular working classroom for the culinary-arts program, and an herb garden to grow herbs used in the restaurant.

What are some unique green aspects of the facility?
The nearly half-acre vegetated roof project:
•Creates a long-term solution for the maintaining of the roof membrane.
•Saves energy through added insulation value.
•Adds acoustical value to spaces within the building.
•Reduces the urban heat-island effect.
•Adds relief to the city's stormwater system by absorbing rainwater.

Swiftwater Elementary Center Swiftwater, Pa.
Architect: Gilbert Architects Inc.

When planning this facility, what considerations were given to green products and processes?
For the site, stormwater quality was enhanced through the use of wetland plantings in the basin as a means for natural water-cleaning practices; the water quantity control was reduced by 45 percent through the means of effective stormwater management. Life-cycle costs analyses were performed to determine the useful life of the products specified for the building, including replacement costs. For example, the asphalt roof shingles and cementitious siding have a 50-year warranty.

What are some unique green aspects of the facility?
Situated in the snow belt of Pennsylvania, pitched roofs were designed to house the mechanical units under the roof to operate more efficiently and to prolong the life expectancy of the units. The high-efficiency VAV system with duel-fuel gas and oil back-up provide a complete system that is energy-efficient and operates under ideal conditions. The classrooms all have natural light with occupancy sensors to reduce energy costs when unoccupied. Where direct sunlight is not appropriate, diffused natural light is provided through a skylight at the main entrance and at the clerestory windows in the gymnasium.



Graphic tools used to navigate the building incorporate animals from the local surroundings.

Community response:
The innovative and environmental education tools used for this 1,200-student elementary school have facilitated a user-friendly building that is used by the community and the students that it serves. For example, the graphic tools used to navigate the building incorporate an animal from the local surroundings at each entrance of the grade-level houses. Corresponding animals are used on interior signage to help direct the younger students that otherwise may get lost in such a large building. This theme was carried through to the library to enhance awareness of the community in which students live and learn.



A "Green Team" of Upper School students has been established to educate visitors to the green and sustainable building features of the building.

Community response:
Community arts organizations, government officials and project stakeholders were invited take part in a day of creative thinking and discussion to outline the energy and environmental design aspects for the new building during an all-day eco-charrette. This collaboration has resulted in two exciting alliances: the Elgin OPERA has moved its corporate offices and most of its rehearsals and performances into the new Rider Center; and the Elgin Theatre Company has scheduled all of its upcoming shows in the facility or related academy facilities. The academy has also entered into a partnership agreement with the city to share related off-site development and infrastructure costs.

Elgin Academy, Harold D. Rider Family Media Science and Fine Arts Center Project • Elgin, Ill.
Architect: DLA Architects, Ltd.

What considerations were given to green products and processes?
The project site is on a previously developed urban brownfield site and is within a half-mile of many basic services and bus routes. The site design includes an exterior terrace on the west side of the building and a courtyard facing the campus quad. Concrete was used for these spaces for its high solar-reflectance index, contributing to reducing the heat-island effect. These outdoor spaces also maximized the open space of the campus, providing usable program spaces for outdoor events and educational programs. Retaining walls shape planting beds landscaped with drought-resistant plant materials.

What are some unique green aspects of the facility?
The building is situated on a hillside. A significant portion of the first and second floor is below grade, using the Earth as a natural insulator. The building is oriented so the main spaces of the building take advantage of the view of the river valley. Sunshades were engineered to control the sunlight from the west. The primary occupancy spaces, such as the classrooms and offices, were designed with large operable windows to take advantage of the views of the Fox River Valley and campus quad. The school itself is a teaching tool. Each science class features a curricular environmental focus, and students of all ages are engaged in monitoring the performance of the building. The academy also is investigating the purchase of handheld devices, which will help students view the air quality of the building on an ongoing basis.

University of Kansas, Krehbiel Scholarship Hall • Lawrence, Kan.
Architect: Treanor Architects

What are some unique green aspects of the facility?
Krehbiel Hall was built on a previously developed site, which reduces sprawl and avoids the need for new infrastructure. A geothermal mechanical system uses the Earth's relatively constant temperature to provide heating and cooling for the building. Although no energy modeling was performed on this project, studies of similar installations have shown an estimated 21 percent reduction in energy usage.

Green initiatives:

Native Kansas limestone and locally manufactured brick comprise the building's exterior skin. Railing elements, ironwork, spindles, wood paneling and a pendant light fixture all were recovered from previously razed buildings on the KU campus and incorporated into the design.



The wood wall feature on Krehbiel's main floor living room actually is walnut doors reclaimed from a previously razed KU campus building.

Green light:

Daylight was maximized throughout all private and public spaces.





Daylight was a key component in the design.

Hillside Elementary School
New Richmond, Wis.
Architect: ATS&R Planners/Architects/Engineers

When planning this facility, what considerations were given to green products and processes?

Products specified place a strong emphasis on those that could be provided locally. Indoor air quality is maintained through maximizing the amount of outdoor air and at the same time capturing latent energy exhausted from the building through the use of heat-recovery wheels.

What was the community response to the project being environmentally responsible?

Before a single line was drawn, the community was asked what was important in a new school building. Safety and security of students was the top priority. Building a school that is healthful, energy-efficient and would keep jobs in the local economy also were paramount. The community has been delighted to witness its ideas "coming to life" as the campus rises at the southern gateway to the city of New Richmond.

Washington and Lee University, James Graham Leyburn Library • Lexington, Va.
Architect: SFCS, Inc.

When planning this facility, what considerations were given to green products and processes?

Although the previous space was dark and cluttered with traditional finishes, the design team had the goal of modernizing the library in a sustainable way, thus using what they could incorporate into the new space, and recycling and repurposing other materials where possible. It also was important in the selection of new furniture, finishes and equipment that the choices improve the interior quality and operations, and that the design allows for flexibility.

What are some unique green aspects of the facility?

Green aspects of Leyburn Library's renovation include new carpet that contains a minimum of 25 percent recycled content; low-VOC paints and adhesives; existing wood tables that were refinished; reused lecterns, encyclopedia stands and bookcases; and shelving and library equipment that were modified and reused. The carpet that was in the original space was recycled, and the new carpet tiles allow for flexibility and quick replacement, if necessary, with less waste. All of the lighting was updated to meet current energy standards, and lighting controls were improved to reduce energy consumption and give staff greater control over usage.



Modular partition systems create offices for staff and can be relocated or reconfigured easily.

Sound strategies:

Although this project was not renovated for LEED certification, many aspects of the design follow sustainable strategies and solutions that meet LEED guidelines. Library staff considered sustainability and minimizing waste important aspects in the design. The recycling and reuse of existing library equipment and furniture was part of the early discussions in designing for the new interior and was carried through in the design. In some cases, choosing to recycle and reuse an item from the original space involved more cost; however, the overriding goal of having less impact on the environment from waste was considered more important.



high-albedo roofing

High-albedo roofing reduces the heat-island effect.

What was the community response to the project being environmentally responsible?

Students were insistent that the residence halls they live in be sustainably responsible. Students living in Centennial Village have made the decision to live there based on its sustainable design features.

Angelo State University, Centennial Village Residence Hall and Commons • San Angelo, Texas

Architect: Randall Scott Architects

What considerations were given to green products and processes?

- Carpet utilized a high percentage of recycled material content.
- Roofing was high-albedo, reducing the heat-island effect.
- Most products on the project were manufactured within a 500-mile radius.
- The reuse and densification of building on site increased green space and provided a smaller building footprint with significantly less impermeable paving.
- High-efficiency, individually controlled HVAC units.

Getting students involved:

Power usage in each living unit is individually metered with feedback available online to students. Contests are run each month rewarding students whose living unit uses the least amount of power.

Lee H. Means Elementary School Harlingen, Texas

Architect: Gignac & Associates, LLP

When planning this facility, what considerations were given to green products and processes?

The new Lee H. Means Elementary School has been designed and constructed to maximize the energy efficiency of the building, improve indoor air quality and minimize the impact on the environment. The school's orientation on the site and the building's exterior envelope were considered carefully to provide optimum energy efficiency. Solar shading devices are used at the windows that receive the most direct sun exposure. These shading devices provide control of solar heat gain, but admit daylight into each classroom and most occupied spaces.

Green aspects:

Energy-efficient mechanical and electrical systems have been used to maximize energy efficiency. The building envelope and ventilation system are designed to provide healthful and comfortable indoor air quality.

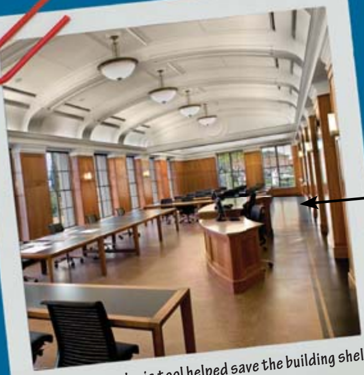
solar shading devices



Solar shading devices control solar heat gain but still admit natural light into most spaces.

Environmental impact:

Materials with high recycled content and low VOCs have been used to minimize the building's effect on the environment.



An energy-analysis tool helped save the building shell, and historic windows and doors.

Planning for best energy use:
•The location of long-term collections storage in below-grade spaces helps to conserve energy over time by isolation of the controlled temperature and humidity areas.
•Office, seminar and reading rooms use perimeter UV-filtered daylight where possible.
•Occupancy and daylight sensors with integrated lighting controls reduce energy demand from building lighting and corresponding cooling loads.

University of California—Berkeley, Bancroft Library (Doe Annex) Renovation
Architect: Ratcliff

When planning this facility, what considerations were given to green products and processes?
The university's goal of LEED certification equivalence for this rare-books library within a historic building was achieved by coordination of sustainability and preservation strategies.

What are some unique green aspects of the facility?

•Controlled demolition process limits chemical contamination.
•Low-VOC paints and sealants.
•High recycled content of finishes (carpet, pad, wood casework, linoleum flooring, steel and ornamental metals).
•Highly renewable finishes (cork flooring, linoleum flooring, FSC-certified wood products).

Waterloo High School
Waterloo, Ill.
Architect: Design Architects Inc.

What considerations were given to green products and processes?
White roofing membrane was used on all low-sloped roofs. Clear anodized aluminum standing-seam roofing was used on the balance of roofs. The solar reflective index of these products reduce the heat-island effect, which helps reduce costs related to heating and cooling, as well as minimize any impact on microclimate and wildlife habitat.

Building energy systems were designed to comply with ASHRAE 90.1 to lower overall energy consumption within the building. This includes occupancy sensors for lighting, high-efficiency mechanical systems and an overall building-automation system.

What are some unique green aspects on the facility?
Special hand washers/dryers were used in all public toilets in lieu of the traditional lavatory: the hand washer/dryer dispenses liquid soap, heats water instantaneously, and dries with blown hot air all in one unit. The unit improves hygiene, eliminates paper towel waste and, because it contains its own instant hot-water heater, reduces energy consumption, as well as material costs and waste; only cold-water supply piping is needed.

Heat-pump systems were designed within the building on a single-pipe hydronic system that is intended to be converted to a geothermal hydronic loop to maximize energy efficiency for the district.



Local species can survive on natural rainfall quantities.

Green on the outside:

Only indigenous, climate-tolerant plants were used in landscaped areas. These local species can survive on natural rainfall quantities and require no additional watering; permanent irrigation systems did not have to be installed.



A multi-story wing maximizes green space.

minimized building footprint

Energy-efficiency notes:
- Energy-efficient mechanical system.
- Heat-recovery system.
- No CFC refrigerants.
- Energy-efficient light fixtures (fluorescent and LED).
- Occupancy sensors.

Materials:
- Renewable building products.
- Most products from local sources (within 500 miles).

Minooka Community High School, South Campus • Channahon, Ill.
Architect: STR Partners LLC

What are some unique green aspects of the site?
- Landscaping of native plant materials.
- Managed stormwater runoff.
- The building's east-west orientation.
- Multi-story wing to maximize green space.
- Trees in parking lots to reduce heat-island effect.
- No landscaping irrigation.

Indoor environmental quality:
- Mechanical system designed for indoor air quality.
- Ventilation system providing outside air.
- Thermal comfort.
- Good acoustical performance.
- Low-emitting materials.
- Pollutant and chemical source control.
- Quality lighting.
- Daylighting/natural light.

River Crest Elementary School Hudson, Wis.
Architect: Hoffman, LLC

What considerations were given to green products and processes?
Interior and exterior finish products were selected based on sustainable qualities: recycled content, regional proximity, responsible harvesting methods, maintenance demands, contribution to energy efficiency and overall life cycle. All toilets and faucets in the building have a low-flow rate to ensure optimal water-use reduction. The maintenance staff has adopted a detailed housekeeping plan, implementing the exclusive use of cleaning products meeting Green Seal certification. Recycling was considered through designated recycling areas in the building's design.

What are some unique green aspects of the facility?
River Crest Elementary is the first LEED gold-certified elementary school in Wisconsin. Special attention was paid to "cool daylighting:" the architect collaborated with a window company to develop a window made entirely of FSC-certified wood and glazing with a visible transmittance of 20 percent to reduce glare and solar heat gain of east, west and south-facing windows. It is the first of its kind and was developed for this project.

thoughtfully chosen materials



Recycling was considered in the selection of products that can be recycled at the end of their useful lives.

What was the community response to the project being environmentally responsible?
Hudson School District's new River Crest School has set the bar for new commercial and educational construction around the region. Not only has River Crest become a tipping point for sustainability action throughout the region, but its lower cost of construction (vs. conventional construction) and lower cost of operations mandates others to follow suit. This school has become a beacon for Hudsonites seeking quality education for their children. And, as the economy flounders, the wise planning choices implemented at River Crest will pay bigger dividends in the future both in terms of real dollars and educational opportunities.

Skyline High School
Ann Arbor, Mich.
Architect: TMP Architecture, Inc.



A sculptural wind turbine focuses attention on the visitor entrance.

What are some unique green aspects of the facility?
During the planning process, designers and school administrators agreed that Skyline High School needed a symbol. The solution was a sculptural roof-mounted wind turbine, situated at the school's highest point. The turbine provides a dynamic, moving visual on an otherwise motionless structure, and symbolizes the school's forward-thinking curriculum, environmental awareness and high-tech environment.

Site treatment:
The site development was treated as an extension of the existing environment, which includes a densely forested surrounding community. Developing only 65 acres of the 110-acre property preserved the natural woodlands and wetlands.

Teaching tool:
As a functional teaching tool, the omni-directional spinning wind turbine is connected to conduit that links to science labs within the school. Students monitor the turbine's energy generation, and discover answers to questions such as, "What time of year does wind generate the most energy?" or "How many wind turbines would provide adequate power for a classroom, a school or an entire community?"

Columbia Adventist Academy, Replacement Classroom Building • Battle Ground, Wash.
Architect: Manley Architects

What considerations were given to green products and processes?
The existing campus was heated by an antiquated steam boiler. A primary greening strategy was to improve energy efficiency. Independent high-efficiency boilers were provided in all campus buildings, and the inefficient existing central boiler system was taken offline. Natural ventilation and extensive daylighting were incorporated into the final design. Sustainable components such as engineered wood products and low-VOC coatings were used. During demolition of replaced buildings, materials were separated for recycling and minimal impact to the local waste-handling systems.



Windows operate remotely through the mechanical controls system.

What are some unique green aspects of the facility?
The classroom wing, library and forum space are naturally ventilated using operable windows set high in each area. These windows operate remotely through the mechanical control system using individually controlled motors, which are linked to the HVAC control system via a series of relays. The controller/relay sets are arranged so windows can be opened and closed in a variety of ways for optimal cooling.

The HVAC control system enables school staff to remotely monitor inside and outside air temperatures and conditions, and open and close windows remotely accordingly. Staff also can choose to pre-program set times or temperature set points to open and close windows automatically for the changing seasons.

Community response:
The response from the community has been enthusiastic and supportive. The general contractor (GC), Erwin Construction, at first was tentative regarding active components of the natural ventilation system. As construction progressed, it became apparent how effective this system would be when complete. The GC became the most enthusiastic cheerleader for the ventilation system and took a proactive role in piecing together the critical window controller/relay interface. The community was excited to see removal of its museum-piece boiler and leaky campuswide system of steam tunnels. With new compact, high-efficiency boilers, the school's smaller energy bills also are getting a warm response.

Centre College, Pearl Hall
Danville, Ky.
Architect: Hastings & Chivetta Architects



The site was designed for minimal impact on the environment, including erosion and sediment control.

What considerations were given to green products and processes?
To facilitate a team approach, an eco-charrette was held at the beginning of the design process, attended by the design team and Centre College stakeholders. The group discussed sustainable strategies and how they could be integrated into the project. Insight was provided relative to the applicability of each particular credit of the LEED rating system and how these strategies could achieve points. The overall objective was not to "chase LEED points," but rather to develop a collaborative effort that enabled attendees to come to consensus on the most practical and applicable strategies.

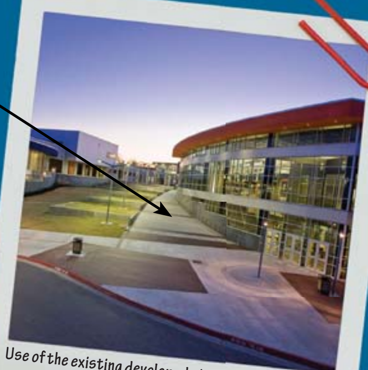
What are some unique green aspects of the facility?
Pearl Hall is the first building in Kentucky to receive LEED gold certification. One of the most important initiatives for this project was drilling a geothermal-well field of 65 wells drilled 300 feet deep for the ground-source heat-pump system. Ground temperatures of 50° to 55° degrees are used to heat and cool the hall, reducing carbon-dioxide emissions and eliminating the need for exposed roof-level cooling units. During the winter months, when the subsurface is warmer than the air above ground, the system transfers heat upward. During summer months, the heat is transferred down. Other green elements include energy-saving HVAC, individual temperature controls, efficient windows, regionally procured materials, materials made of recycled content and with low- or no VOCs, energy-efficient lighting, water-saving plumbing fixtures and water-efficient landscaping.

Doing the math:

The 2 percent initial added investment (based on construction cost) will realize a 20 percent life-cycle savings, as well as have a positive impact on the environment and the quality of life for Centre College students.

Rogers Heritage High School
Rogers, Ark.
Architect: Hight-Jackson Associates, PA

When planning this facility, what considerations were given to green products and processes?
The new Rogers Heritage High School was built on the existing site of the former Rogers High School, which was being used as a sophomore campus. Since the decision was made to remodel existing buildings and incorporate those spaces into the new building design, there was no new site development, and resources and materials were reused where possible in the remodeling of about 100,000 square feet of existing space.



Use of the existing developed site and reuse of existing spaces in the remodeled portions reduced the project's impact on the environment.

Green light:

The building was designed to incorporate light sensors to reduce energy use.

Project challenge:
One challenge for this expanded high school was that it be "equitable" with the city's existing high school in appearance, size and opportunities for learning.



At The Children's School, the building is a teaching tool.

The Children's School
Stamford, Conn.
Architect: Maryann Thompson Architects with Maryann Strong

What considerations were given to green products and processes?
The materials palette of natural and regional materials was selected primarily for its durability and sustainability. Interior finishes with low toxicity and free of VOCs create a learning environment with the best possible indoor air quality. Recycled products are used for the finish materials, as well as for the structural members. In addition, finishes include rapidly renewable materials; many products are harvested and manufactured locally. To conserve water, plumbing fixtures with reduced water-capacity functions were chosen. Native and adaptive plant species were used to avoid the need for irrigation.

What was the community response to the project being environmentally responsible?
Environmental responsibility is embedded in the school's value system and curriculum. From the beginning of the design process, the school understood the building as an educational teaching tool— like its Montessori learning materials— designed to teach about the natural world and the importance of energy and conservation. Throughout the building, placards label and explain the sustainable strategies implemented in the school. These lessons are integrated into curriculums that expand on the strategies and concepts that the building illustrates.

What are some unique green aspects of the facility?
The school is designed as a passive solar building with cross ventilation in order to reduce the use of mechanical systems. The school opens up to the south and employs a thermal mass created by a thickened slab, enabling maximum winter sun intake and heat storage. In the summer, deep overhangs and louvers modulate the sun entering the building. Cross ventilation and the stack effect are used to increase wind flow through the building, eliminating the need for air conditioning. The design also admits natural light to all regularly occupied spaces, reducing the need for artificial lighting.

University of Kansas, Boathouse
Lawrence, Kan.
Architect: Treanor Architects, PA

What are some unique green aspects of the facility?
Nestled into a grove of cottonwood trees, the University of Kansas Boathouse was sited to have a positive impact on the environment, preserve open space, maximize river views and capitalize on natural light. The building's dramatic team room is flooded with natural light and incorporates renewable bamboo wood paneling.



The building's team room uses an abundance of insulated, high-solar-gain, low-e glass.

Green footnotes:

The exterior features regionally processed and manufactured site-cast concrete walls, an abundance of insulated, high-solar-gain, low-e glass, and a deep overhanging roof for shading. Taking advantage of expansive river views, the building's dramatic team room is surrounded by an environmentally friendly Brazilian hardwood deck.

Weather considerations:

The boathouse is in the Kaw River floodway and is designed to accommodate floodwater up to 8 feet above the lower-level floor.

Pullout:



The three-story atrium filters light to the lower level and assists in providing daylighting to the interior.

What was the community response to the project being environmentally responsible?
The energy-generation community and college alumni showed their support of Bismarck State College's role in the future—and conservation—of energy by providing donations that funded the majority of the project.

Bismarck State College, National Energy Center of Excellence • Bismarck, N.D.
Architect: EAPC

When planning this facility, what considerations were given to green products and processes?
The building serves as a learning lab for the Department of Energy at Bismarck State University. It was predetermined to incorporate sustainable design features and green products into all aspects of the design process and construction. Using LEED standards as a guide, sustainable products and systems were selected, evaluated and included throughout the building. An independent energy consultant assisted in the evaluation of how the building would function as a whole with a given combination of systems.

What are some unique green aspects of the facility?
Designed to meet LEED silver, the sustainable design features include retractable solar shades regulating daylighting in 75 percent of the building; geothermal heating/cooling; fly-ash concrete and block; and reliance on regional sources for building materials with low VOCs and 20 percent recycled content.

Situated on the edge of Bismarck State College's hilltop campus, the site is dominated by dramatic views of the Missouri River valley. Instead of placing new construction on the crown of the knoll, the building is nestled into the hillside. A narrow building footprint maximizes southern exposure and daylighting.

River City High School, West Sacramento Recreation Center • West Sacramento, Calif.
Architect: DLR Group

What considerations were given to green products and processes?
The design team worked collaboratively with the city of West Sacramento's Department of Parks and Recreation, Washington Unified School District and the community to create a state-of-the-art joint-use recreational center on the campus of a new high school. The design integrates durable materials appropriate to a high school with emphasis on regionally available, low VOC-emitting and recycled materials. Early design processes included a roof photovoltaic system study and a high-efficiency HVAC system.

What are some unique green aspects of the facility?
Sustainable design began with proper site orientation to capitalize on daylighting features and reduce heat gain naturally. The gymnasium is lighted naturally during the day using high-performance daylighting systems, which reduce the use of lighting fixtures to primarily evening hours. White, reflective rooftop coating decreases the heat-island effect to better secure indoor environment from transfer of heat to and from exterior. All high-traffic common areas and corridors use stained concrete flooring. The campus includes a 7.5-acre riparian habitat, acting as a buffer to railroad tracks along the east side of the site.

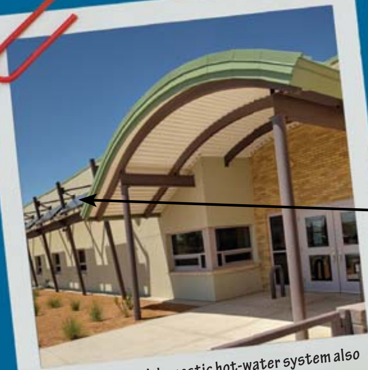


A daylighting system in the gymnasium reduces the use of lighting fixtures to primarily evening hours.

Green rewards:

The design exceeded state Title 24 standards and was able to participate in the Savings by Design program sponsored by the public utilities commission.

Rudolfo Anaya Elementary School
Albuquerque, N.M.
Architect: Van H. Gilbert Architect PC



The solar thermal domestic hot-water system also functions as window shading devices.

What considerations were given to green products and processes?
Green material selections that contributed to the success of the project included aluminum window/storefront frames that consisted of at least 40 percent recycled content; structural steel that consisted of more than 90 percent recycled content; and carpeting that consisted of more than 30 percent recycled content. To prevent the off-gassing of harmful chemicals, low-emitting paints, coatings, adhesives, sealants, carpets and composite woods were used. The design team used an integrated design process to explore various ways to achieve optimum building performance.

What are some unique green aspects of the facility?
- A closed-loop solar collector water heating system was designed to accommodate the hot-water needs for the entire building. The system includes an energy-monitoring display in the school's main corridor so students, parents and staff can see, in real time, how many BTUs the system is generating and how much money the system saves.
- The air-handling units were designed with an economizer section that enables the units to run on 100 percent free outside air.
- Energy-efficient, pendant-type fluorescent fixtures provide a cost savings in overall power consumption. Occupancy sensors make sure the lights are off in unoccupied spaces.
- Interior water fixtures designed to use 40 percent less water, low-flow urinals, water closets and faucet sensors reduce water use in restrooms.

Community response:
The students, teachers and staff of each of the prototype schools are excited to learn about the environmental benefits and are proud to be at the forefront of environmental design. "The prototype is a green built school with renewable and recycled materials used in the construction which has been meaningful for the families ... the school has wonderful environmental benefits," says Jamie Jacobson, principal at one of the prototype schools.

Millstadt Consolidated School Primary Center • Millstadt, Ill.
Architect: BLDD Architects, Inc.

What considerations were given to green products and processes?
The ultimate goal of the district was to create a high-performance facility that was affordable, energy-efficient, environmentally responsible, healthful and safe. Building models were created to determine the interaction and life-cycle cost of various systems such as glazing, exterior wall construction, mechanical systems and lighting types. Careful consideration was given to designing the building envelope to optimize energy efficiency, including insulation types to prevent air infiltration. A variety of materials were considered, and recycled products were used where possible.

What are some unique green aspects of the facility?
The Millstadt CS Primary Center initially was designed with a hybrid system that could be converted easily into a geothermal system. Halfway through construction, the Illinois Clean Energy Community Foundation awarded a grant to the school district. This grant, along with the community's support, enabled them to complete the geothermal system with a turnkey loop field. Available cooling then enabled additional summer activities to become a reality. Program spaces were combined into multi-use spaces, and the building was zoned between shared and classroom spaces to reduce the building's size, cost and environmental impact. The proximity to the Village Park and existing school created an educational complex easily reached on foot, enabling shared use of facilities.



The building was oriented off the east-west axis to follow the natural terrain, reduce site disturbance and develop a relationship to the adjacent park.

Community response:
Community support has been overwhelmingly positive. The construction of this building came at a time of record increases in utility costs, which heightened the necessity to seek innovative solutions. As a small community, news of the district's intent to use a geothermal system gained immediate attention of citizens and the media. The district took great pride in the new mechanical system and continues to share its genuine excitement with others. Parents are happy their children are learning in a healthy and safe building; the community is happy to have a place for them after hours and during the summer; and the district is happy to have an affordable, high-performance building.



The flex-unit concept and ICF exterior wall construction ensure a flexible design for the future.

What was the community response to the project being environmentally responsible?

Student surveys conducted on this residence hall provided highly positive responses from students about this innovative concept.

Angelo State University, Plaza Verde Residence Hall • San Angelo, Texas

Architect: Randall Scott Architects

When planning this facility, what considerations were given to green products and processes?

- Designed as a LEED gold facility.
- Green roof (partial) with shaded outdoor seating area.
- Greywater-recycling system.
- Rainwater-harvesting system.
- Highly efficient HVAC systems.
- High-albedo roofing to reduce heat-island effect.
- Low-flow water fixtures and xeriscape landscaping to reduce water usage.

What are some unique green aspects of the facility?

The flex-unit concept and ICF exterior wall construction with clear-span structural system between the exterior wall and public corridor enable the building shell to remain while interior renovation/ remodel is performed in the future, thereby reducing future landfill needs for future renovations on this 75-year building substantially. The flex-unit concept provides residence-life directors the ability to adapt unit types to the varying needs of students as demographics and residence-life programming needs change. A flex-unit residence hall can adapt to provide any size and type living unit required by students or staff. Students can select their preferred number of roommates/suite-mates and the price point, providing students with flexibility and control over their environment.

Westside Elementary School • Valdosta, Ga.

Architect: J. Glenn Gregory and Associates Architects PC

What are some unique green aspects of the facility?

The generous use of brick, glass and daylighting provides an open, secure and energy-efficient design.

Green design features:

- The use of regional and recycled materials.
- Energy-efficient glazing in large glass lobby.
- Two-story design provides clerestories for ample natural light.
- Water-saving plumbing fixtures.
- Sensory occupancy lighting.
- Cool roof materials.
- Well-utilized site design.



Westside Elementary has two-story, energy-efficient glass for daylighting.

A place to play

The two-story design created separate upper- and lower-grade playgrounds.

East Central College, Nursing, Health and Science Building • Union, Mo.
Architect: Hastings & Chivetta Architects



Abundant daylighting is evident in the design of the building.

What are some unique green aspects of the facility?
Finish materials have low levels of VOC content. Plumbing fixtures are fitted with water-saving features. Energy-saving fluorescent lamps in conjunction with high-efficiency electronic ballasts are used throughout the building. Multi-zone lighting control stations in conjunction with occupancy sensors provide for lighting-system efficiencies. Areas within the building provide for collection of recyclables.

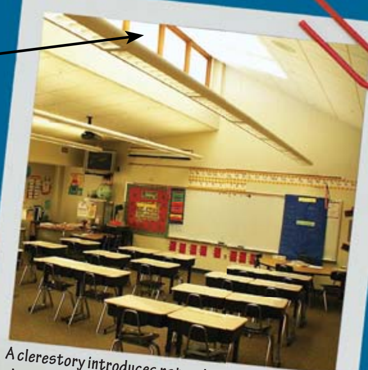
Sustainable considerations:
LEED certification was not pursued, but many sustainable components were incorporated into the design. Locally available materials were used when possible, and equipment and materials were specified toward manufacturers who prioritize recycled content in their production process.

Efficiency footnotes:

Computer modeling was utilized to optimize the HVAC system design and to minimize energy usage. Building mechanical systems are controlled by a DDC energy-management system to optimize the efficiency of the equipment.

Jefferson Elementary School, Additions and Remodeling • Omaha, Neb.
Architect: Jackson-Jackson & Associates, Inc.

What are some unique green aspects of the facility?
Energy conservation was a major objective in the expansion of this school from 36,000 square feet to 62,200 square feet. Clerestories in existing classrooms were maintained to introduce natural light into the classrooms and subsequently into adjacent corridors. Thermally efficient windows replaced single-pane glass, and an abundance of natural light was introduced into the main entry of the building, utilizing highly rated, low-e reflective glass.



A clerestory introduces natural light into the classroom and adjacent corridor.

Green from the ground up:
A large, energy-consuming boiler was removed, and a ground-loop heat-pump system was installed to provide both heating and cooling. Eighty-four wells were drilled under the parking lot and playground areas to a depth of 289 feet each. This system is expected to provide a payback in seven years.

Community consideration:
Community use of the building was a key element in the design of this facility, as the building was designed to be secure after school hours. A new multipurpose room with support spaces was provided to accommodate after-school community activities.



The air-cooled chiller system is used to generate ice using economical electrical power during off-peak evening hours and stores it in underground storage for cooling during daylight peak periods.

East Stroudsburg Elementary School
East Stroudsburg, Pa.
Architect: Buchart Horn, Inc./BASCO Associates

What considerations were given to green products and processes?
Design choices were made with a twofold consideration: be fiscally responsible with the district's budget, and select materials that not only were sustainable in composition, but also offered practical solutions for ongoing maintenance and operations. For example, ceramic tile was used instead of vinyl composition tile, which results in an approximate annual savings of more than $7,000 in maintenance costs. Although the upfront capital costs were slightly higher, the life-cycle costs for maintenance will recoup the additional investment many times over.

What are some unique green aspects of the facility?
Teaching spaces, including a large-group instruction area on the third floor overlooking the entry plaza, incorporate natural light to enhance the learning environment and to reduce energy costs. The school also uses an air-cooled chiller system to generate ice using economical electrical power during off-peak evening hours and stores it in underground storage for cooling during daylight peak periods. The ice-storage facility is the fourth application of this energy-efficient HVAC system used by the district. Occupancy sensors control lights in unoccupied rooms, and recycled carpet was used throughout the building.

What was the community response to the project being environmentally responsible?
The community, especially colleagues from neighboring districts, has been curious and impressed by the use of the ice to offset energy costs for cooling the building. Many tours have been conducted. Residents of the district appreciate that the building not only uses sustainable materials and energy-efficient systems, but also is designed flexibly for community use outside of regular school hours. The school's multipurpose gymnasium can be accessed through a dedicated lobby for use after school hours and also provides separate toilet facilities.

Tyler Junior College, Comprehensive Campus Master Plan • Tyler, Texas
Architect: Randall Scott Architects

When planning this facility, what considerations were given to green products and processes?
The TJC 2028 campus master plan calls for LEED certification as a minimum requirement for all future buildings constructed on campus.

What are some unique green aspects of the plan?
- Densification of new buildings on campus results in more open/green space for student life to occur.
- Master plan proposed vertical parking structures in low-lying areas on campus, resulting in more open/green space by reducing significant amounts of surface parking.
- New buildings are planned around the open green space (quad), resulting from building and parking densification.
- Densification of buildings and parking reduced surface stormwater runoff and flooding on campus and downstream of drainage infrastructure.



Student life can occur freely with more open green space on campus.

What was the community response to the project being environmentally responsible?
Board members were supportive of the sustainable requirements included in the master plan.



Large, operable, low-e glazed windows take advantage of daylight and allow for natural ventilation.

Eastern Shore Community College, Business Development and Workforce Training Center • Melfa, Va. • Architect: Shriver and Holland Associates

What considerations were given to green products and processes?

In planning the center, the design team gave consideration to green products and processes, ranging from the building plan layout, to the materials selection, to the mechanical and electrical systems. The building siting coordinates with existing grades to minimize land disturbance. The linear building plan aligns along an east-west axis to take advantage of northern and southern natural daylight. Classroom and office windows are operable to provide natural ventilation and generous to take advantage of natural light; more than 90 percent have energy-efficient low-e glazing.

Efficiency in mind:

High efficiency, state-of-the-art mechanical systems/controls ensure health and comfort of occupants while maximizing energy savings. Interior fluorescent lighting with high-efficiency electronic ballasts, and lighting controls—a combination of occupancy sensing, countdown timing, multi-level zoned switching and wireless remote control—reduce energy consumption.

Green footnotes:

- Masonry products were obtained locally to minimize freight necessity.
- The painted metal roof is easily recyclable.

Peninsula College, Library and Administration Building • Port Angeles, Wash.
Architect: Schacht Aslani Architects

What are some unique green aspects of the facility?

Sustainable design strategies are intrinsic to the overall concept for the Peninsula College Library and Administration Building. Rainwater from the roofs and paved surfaces is diverted to rain gardens and bioswales on each side of the building. An under-floor air-distribution plenum provides a high level of indoor air quality and acoustic performance, while reducing the energy load of the building.

Green from the ground up:

The mechanical system for the building is powered by a geothermal energy source that harvests free energy from the ground.

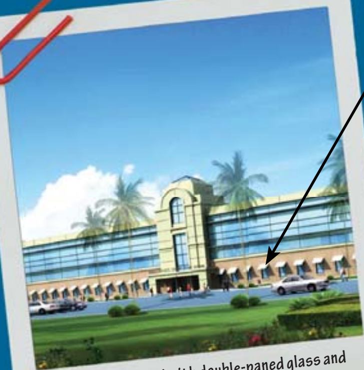


Rainwater from the roof and paved surfaces is diverted to rain gardens and bioswales that are designed to infiltrate all water on site.

Engaging occupants:

Operable windows in all of the building's perimeter spaces enable individual occupants to control access to fresh air, while providing enough natural light to reduce the need for electrical lighting.

Sweetwater Union High School, Administration, Theater and Library Complex • National City, Calif.
Architect: BCA Architects



Heat gain is reduced with double-paned glass and sunscreens.

When planning this facility, what considerations were given to green products and processes?
The largest LEED bond program for schools in California began with board adoption of a resolution toward 100 percent LEED-certified-gold designs for the redevelopment of the district's nine oldest schools, and a close working relationship with USGBC. The largest project, in review for LEED platinum, the Sweetwater campus dates from the1920s and takes an integrated approach toward planning, design, construction and operations.

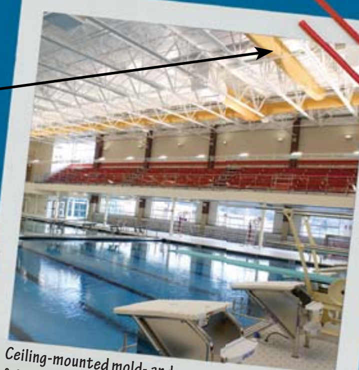
What are some unique green aspects of the facility?
Maximizing daylight was one of many sustainable features designed into the building. Heat gain from high ceilings and large windows is reduced by double-paned glazed glass, and sunscreens that include ground-floor sun canopies and upper-floor perforated metal sun shades. Improved indoor air quality is achieved by increasing natural ventilation and using CO_2 sensors. Water usage is reduced through water-reducing bathroom fixtures and landscaping plants appropriate to the area. Community employment was supported and costs were kept on track by specifying concrete and concrete block material manufactured locally and using area workers who are skilled in concrete form-work.

What was the community response to the project being environmentally responsible?
The district has a website and outreach programs to explain the projects and green features to the community, including an 800 number to answer queries. Each emphasized to the community that green building saves energy by 30 percent, reduces carbon emissions by 35 percent, reduces water use by 30 to 50 percent, and reduces the cost of waste by 50 to 90 percent, helping people understand the emphasis on LEED gold certification. "The community, by a large percentage, said we are willing to tax ourselves because we want a continued and enhanced quality education for our children," says Jesus M. Gandara, superintendent.

Central York School District, Natatorium York, Pa.
Architect: Schradergroup Architecture LLC

When planning this facility, what considerations were given to green products and processes?
When planning this facility, consideration given to green products and processes focused primarily on those that would help achieve the district's goal of building a facility that maximized efficiency and cost-effectiveness from an operations and maintenance standpoint. Products and processes that contributed to energy, water and long-term maintenance savings were investigated and included. Also incorporated in the project were interior finishes offering durability, high recycled content and low VOCs.

What are some unique green aspects of the facility?
The facility utilizes a ground-source heat pump for heating and cooling. Because of the inherent issues associated with the high humidity environment of a natatorium, special attention was given to indoor air quality. Waterfree urinals, along with a system that reclaims condensate from the natatorium HVAC units for reuse in the pool, greatly contributed to water savings. Careful consideration was given to low-emitting and sustainable material choices that would minimize maintenance while maximizing longevity. Incorporation of natural light and indirect lighting using high-efficiency fluorescent fixtures offers energy savings as well as a better quality light.



Ceiling-mounted mold- and corrosion-resistant fabric ductwork was used to improve indoor air quality in the high-humidity environment.

Community response:
The community responded positively to the smart design approach, as it resulted in a highly efficient and cost-effective facility that would pass enormous savings to taxpayers. Because of the water-savings methods used, the local municipality did not require purchase of additional sewage capacity—notable for a high water-usage facility. Also, the ground-source heat pump offered an estimated 4.5-year payback on investment; however, because of unforeseen increases in energy costs, actual payback has been reduced to three years. Although environmental responsibility was embraced from the start, tangible benefits such as these tremendous savings drew overwhelming approval.



light-filled cafeteria

The cafeteria with tall windows provides views of the Cahaba River.

Community response:
The city of Trussville immediately embraced the project and marveled at the use of natural light, views and native materials. The Cahaba River is practically in everyone's backyard, so people were appreciative of the efforts made to protect and celebrate it. The school has developed programs to use the river in the curriculum and to involve the community in restoration efforts. In recognition of this acute environmental sensitivity, the Cahaba River Society presented it with the Blue Green Design Award.

Hewitt-Trussville High School
Trussville, Ala.
Architect: Davis Architects

When planning this facility, what considerations were given to green products and processes?
The city of Trussville wanted to reflect the best of its community while respecting the ecology of the beautiful site along the banks of the Cahaba River, one of America's last and longest free-flowing rivers. The design of the building focused primarily on protecting the river and using the existing vegetation to stabilize the soils and provide natural shading. Much consideration was given to using green materials that were manufactured and harvested locally, and unique recycled materials were incorporated into the structure and finishes.

What are some unique green aspects of the facility?
The building is shaped around the adjacent Cahaba River to respect and celebrate the environment while also teaching the importance of preserving it. Playing fields on the other side—connected to the campus by a pedestrian bridge—take advantage of natural grasslands that were there long before a single stone was put in place. Special woodland parking areas preserve numerous special species of trees tagged by the architect for survival, and the surrounding undeveloped areas and existing vegetation allow for natural filtering of contaminants from the parking lot. High-quality metal roofing is part of a rainwater collection system that channels water into a pond to supply the school's irrigation system.

For more information about the projects featured in this Field Guide, please refer to their individual Architectural Portfolio pages in this issue:

State Listing

*Citation Winner

Index to Architects And Suppliers

***Citation Winner**

ACI/Frangkiser Hutchens, Architects & Planners

104th Street • Kansas City, MO 64131
(913)338-2300

Liberty Junior High School, Auditorium Renovations .... p. 177
Auditorium/assembly furniture: Track Seating. *Carpet:* Karastan. *Ceilings:* Armstrong. *Door hardware:* Ives, LCN Closers, National Guard Products, Schlage, Von Duprin. *Doors:* Marshfield, Overhead Door, Steelcraft. *Draperies/Blinds:* Allied Theatre Crafts, Hunter Douglas. *Emergency lighting:* Phillips. *Fire/Life-safety systems:* Progressive Electronics. *Flooring:* Acme Flooring, Nora Flooring, Roppe. *HVAC control devices:* Trane. *HVAC units:* McQuay. *Indoor lighting:* Celestial Lighting, Kramer, Lightolier, LSI, Phoenix. *Insulation:* Owens Corning. *Paint:* Pittsburgh Paints.

Adams Group Architects PA

10020 Park Cedar Drive • Charlotte, NC 28210
(704)341-0303

Monroe High School, Stadium .... p. 178
Athletic equipment: Jaypro, Sports Edge. *Bleachers/Grandstands:* Southern Bleachers. *Brick/Masonry:* Metromont, Taylor. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Door hardware:* National Guard Products, Rockwood, Yale. *Drinking fountains:* Elkay, Halsey Taylor. *Fire/Life-safety systems:* Honeywell. *Flooring:* Dal-Tile. *Hand-drying equipment:* American Dryer. *HVAC units:* Trane. *IAQ devices:* Titus. *Indoor lighting:* LSI. *Kitchen equipment:* Foodcraft. *Lockers:* Republic Storage Systems. *Locks:* Yale. *Paint:* ICI. *Physical-education flooring:* Astro Turf. *Plumbing:* Josam. *Roofing:* Firestone. *Scoreboards/Clocks:* Anson Metals, Fair-Play. *Security systems:* Bosch. *Washroom accessories:* A&J Washroom Accessories. *Washroom fixtures:* Kohler. *Washroom/shower partitions:* American Sanitary Partition. *Windows:* Kawneer.

Akol & Yoshii, Inc. Architects

1407 Oakland Blvd., #203
Walnut Creek, CA 94596 • (925)934-5522

Dougherty Valley High School ....p. 74-75
ADA/Compliance equipment: Garaventa. *Athletic equipment:* Porter Athletic Equipment, Stackhouse. *Auditorium/assembly furniture:* Irwin Seating. *Bleachers/Grandstands:* Southern Bleacher. *Brick/Masonry:* Endicott. *Cafeteria furniture:* Traulsen. *Carpet:* Lees. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Clocks/Time management:* Berbee. *Communications systems:* Belden, Cisco, Corning, Panduit. *Door hardware:* LCN Closers, Schlage, Von Duprin. *Doors:* Special-Lite. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* HAWS. *Elevators:* ThyssenKrupp. *Emergency lighting:* Capri, Day Brite, Evenlite. *Fire/Life-safety systems:* Crane Plastics, Zurn. *Flooring:* Armstrong, Johnsonite. *Hand-drying equipment:* Armstrong World Industries. *HVAC control devices:* Alerton, Staefa. *HVAC units:* Carrier, Mitsubishi, Trane. *Indoor lighting:* HE Williams, Prescolite, Sensor, Unison. *Kitchen equipment:* GE, Sub-Zero, Whirlpool. *Library/media center furniture:* Library Bureau. *Lockers:* Penco Products. *Lockers:* Santana. *Locks:* Schlage. *Lounge furniture:* Wenger. *Markerboards:* Nelson-Adams, Polysteel. *Movable partitions/walls:* Cookson, Modernfold. *Other:* KM Fabrics. *Paint:* Kelly Moore. *Physical-education flooring:* Action Floor Systems, Pawling. *Playground equipment:* Porter Athletic Equipment. *Roofing:* Garland. *Science furniture:* Campbell Rhea. *Scoreboards/Clocks:* Colorado Time, Daktronics, Porter Athletic Equipment. *Security systems:* Wheelock. *Signage:* Supersign. *Skylights:* Kalwall. *Washroom accessories:* Bobrick, Georgia Pacific, Tork. *Washroom fixtures:* American Standard, Elkay. *Washroom/shower partitions:* Bobrick, Santana. *Waste receptacles:* Wabash Valley. *Wire management:* Panduit.

American Campus Communities

805 Las Cimas Parkway, Suite 400
Austin, TX 78746 • (512)732-1000

Arizona State University, Vista del Sol .... p. 111
Brick/Masonry: Trendstone. *Cabinets:* Hilton. *Card systems:* HID. *Carpet:* Shaw. *Ceilings:* Armstrong. *Door hardware:* Von Duprin. *Doors:* American Doors. *Elevators:* Schindler. *Emergency lighting:* GAI Tronics. *Flooring:* Earthwerks. *HVAC units:* Brant. *Kitchen equipment, laundry equipment:* GE. *Locks:* Falcon. *Paint:* Benjamin Moore, Glidden. *Physical-education flooring:* Eco Surfaces. *Plumbing:* Moen. *Security systems:* Cisco, HID. *Washroom accessories:* Infinity. *Washroom fixtures:* Cleveland Faucet. *Waste receptacles:* Landscape Forms. *Windows:* American Openings, Hallmark.

AP3C Architects

718 Architects, 400 S. Cast Iron Building
Philadelphia, PA 19106 • (215)627-6767

Hopewell Elementary School, Renovation and Addition .... p. 30
No supplier information available.

Archi*technics/3, Inc.

10405 Town and Country Way
Houston, TX 77024-1128 • (713)468-9388

University of Houston System at Sugar Land, Brazos Hall .... p. 112
Auditorium/assembly furniture: American Seating. *Brick/Masonry:* Interstate Brick. *Carpet:* Collins & Aikman. *Ceilings:* Armstrong, USG. *Ceramic tile:* Dal-Tile. *Classroom furniture:* Izzy Design, KI. *Computer furniture:* KI. *Door hardware:* Best Access, Sargent, Stanley. *Doors:* VT. *Draperies/Blinds:* Bali. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* Edwards System Technology. *Flooring:* Manningston. *HVAC control devices:* Alerton. *HVAC units:* Trane. *Indoor lighting:* Finelight, Focal Point, Leviton, Lithonia, Peerless. *Insulation:* Johns Manville. *Kitchen equipment:* Kenmore. *Lockers:* Republic. *Locks:* Best Access. *Lounge furniture:* Harter, Keilhauer, Martin Brattrud. *Markerboards:* Newline. *Movable partitions/walls:* Modernfold. *Multipurpose areas furniture:* KI. *Office furniture:* Knoll, Teknion. *Paint:* Sherwin-Williams. *Physical-education flooring:* Everlast. *Plumbing:* Kohler. *Roofing:* Suprema. *Science furniture:* Rhino. *Washroom accessories:* Bobrick. *Washroom fixtures:* Kohler. *Washroom/shower partitions, waste receptacles:* Bobrick. *Windows:* Vistawall.

Architectural Vision Group, Ltd.

6250 Grand Central Ave. • Vienna, WV 26105
(304)865-1435

Point Pleasant Junior/Senior High School....p. 179
Auditorium/assembly furniture: Hussey Seating. *Bleachers/Grandstands:* Hussey Seating. *Brick/Masonry:* Belden Brick. *Cabinets:* LSI. *Carpet:* Interface. *Ceramic tile:* American Olean. *Door hardware:* Falcon. *Doors:* Algoma Hardwoods. *Fire/Life-safety systems:* Appalachian Signal & Products. *Flooring:* Azrock. *Hand-drying equipment:* Bradley. *HVAC control devices, HVAC units:* Carrier. *Indoor lighting:* Lightolier. *Library/media center furniture:* Brodart. *Lockers:* Penco Products. *Paint:* Sherwin-Williams. *Physical-education flooring:* Cincinnati Floor. *Roofing:* Carlisle. *Skylights:* Kalwall. *Washroom accessories, washroom fixtures:* Bradley. *Washroom/shower partitions:* Santana. *Windows:* Kawneer.

Architecture Design Group, Inc.

922 E. Wayne St. • South Bend, IN 46617
(574)288-6626

St. Mary's College, Spes Unica Hall .... p. 113
Brick/Masonry: Glen-Gery. *Carpet:* Shaw. *Ceilings:* Armstrong, Hunter Douglas, Rulon. *Ceramic tile:* Dal-Tile, Vitra, Zebrano. *Classroom furniture:* Herman Miller, KI. *Door hardware:* LCN Closers, Rixson, Stanley. *Doors:* Ceco, Won-Door. *Elevators:* Schindler. *Flooring:* Johnsonite. *HVAC units:* York. *Indoor lighting:* Lightolier, Lithonia Lighting, Louis Poulson. *Locks:* Best Access. *Lounge furniture:* Nucraft, Patrician. *Markerboards:* Claridge. *Office furniture:* Herman Miller. *Paint:* Scuffmaster, Sherwin-Williams. *Washroom accessories:* American Specialties, Inc. *Washroom/shower partitions:* Accurate Partitions. *Windows:* YKK.

Ashley McGraw Architects, PC

500 S. Salina St. • Syracuse, NY 13202
(315)425-1811

***Liberty High School, Media Center ....p. 205**
No supplier information available.

ATS&R Planners/Architects/Engineers

8501 Golden Valley Road, Suite 300
Minneapolis, MN 55427 • (800)545-3731

Hillside Elementary School .... p. 31
Athletic equipment: Athletic Recreation Equipment. *Brick/Masonry:* Premiere Block. *Brick/Masonry:* Sioux City Brick. *Cabinets:* LSI, Wilsonart. *Carpet:* Shaw. *Ceilings:* USG. *Ceramic tile:* Dal-Tile. *Classroom furniture:* Innovative Furniture Solutions. *Clocks/Time management:* Primex Wireless. *Communications systems:* Telex. *Computer furniture:* Innovative Furniture Solutions. *Doors:* Graham. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* Ames, Gruvlok, Tyco. *Flooring:* Dal-Tile. *HVAC control devices:* Belimo, Teletrol. *HVAC units:* McQuay. *IAQ devices:* Automation Components, Veris Industries. *Indoor lighting:* Lithonia. *Kitchen equipment:* Avtec, Blodgett. *Library/media center furniture:* Buckstaff. *Lockers:* DeBourgh. *Lounge furniture:* Innovative

Furniture Solutions. *Movable partitions/walls:* Hufcor. *Multipurpose areas furniture, office furniture:* Innovative Furniture Solutions. *Paint:* Sherwin-Williams. *Physical-education flooring:* Connor. *Washroom fixtures:* Acorn. *Washroom/shower partitions:* Santana. *Windows:* Old Castle Glass.

Osseo Adult Education Center .... p. 153
Cabinets: LSI. *Carpet:* Lees. *Ceilings:* Armstrong. *Ceramic tile:* Crossville. *Communications systems:* Bogen. *Elevators:* Schindler. *Emergency lighting:* Lithonia. *Flooring:* Rikett. *Indoor lighting:* Lithonia. *Markerboards:* Claridge. *Paint:* ICI Dulux. *Signage:* Metal Arts.

BBS Architects & Engineer

244 E. Main St. • Patchogue, NY 11772
(631)475-0349

Cherry Lane Elementary School, Library.. p. 32
Brick/Masonry: Consolidated Brick. *Cabinets:* Brodart. *Carpet:* Bentley Prince Street. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile, Wausau Tile. *Computer furniture:* Brodart. *Door hardware:* Schlage, Von Duprin. *Doors:* Kawneer, Mohawk. *Draperies/Blinds:* Draper, Levelor. *Drinking fountains:* Elkay. *Emergency lighting:* Luxnet. *Fire/Life-safety systems:* Fire-Lite, JL Industries. *Flooring:* Armstrong. *HVAC control devices:* Johnson Controls. *HVAC units:* Carrier, Markel. *Indoor lighting:* Halo, Lightolier. *Insulation:* Dow. *Library/media center furniture:* Brodart, Duhnke. *Locks:* Best Access. *Other:* Wilsonart. *Paint:* Benjamin Moore. *Plumbing:* Wade. *Roofing:* Soprema. *Skylights:* Kalwall, Wasco. *Washroom accessories:* Bradley. *Washroom fixtures:* Crane Plastics. *Windows:* St. Cloud Window. *Wire management:* Panduit.

BCA Architects

210 Hammond Ave. • Fremont, CA 94539
(510)445-1000

Sweetwater Union High School, Administration, Theater and Library Complex .... p. 206
No supplier information available.

Bearsch Compeau Knudson Architects & Engineers PC

41 Chenango St. • Binghamton, NY 13901
(607)772-0007

Delaware Chenango Madison Otsego Board of Cooperative Education Services (BOCES), Additions and Alterations .... p. 154-155
Bleachers/Grandstands: Interkal. *Cabinets:* Case Systems. *Cafeteria furniture:* Seating Concepts. *Carpet:* Mannington. *Ceilings:* Armstrong. *Ceramic tile:* American Olean, Crossville, Dal-Tile. *Chalkboards:* Polyvision. *Childcare furniture:* HON, Virco. *Classroom furniture, Computer furniture:* HON. *Door hardware:* Besam, Best Access, Stanley. *Doors:* Algoma Hardwoods, Special-Lite, Tubelite. *Draperies/Blinds:* Draper. *Drinking fountains:* Acorn. *Elevators:* ThyssenKrupp. *Emergency lighting:* Lithonia. *Flooring:* Armstrong, Crossville, Mannington. *HVAC control devices, HVAC units:* Trerice. *Indoor lighting:* Lithonia, Tech Lighting. *Library/media center furniture:* Blanton & Moore. *Lockers:* List Industries, Superior. *Lounge furniture:* HON. *Markerboards:* Polyvision. *Multipurpose areas furniture, office furniture:* HON. *Paint:* Sherwin-Williams. *Physical-education flooring:* Bona Sport, Pawling. *Roofing:* Sure-Flex. *Science furniture:* Case Systems, HON. *Scoreboards/Clocks:* Primex, Sportable Scoreboards. *Signage:* ASI Modulex. *Skylights:* American Skylights, Naturalite. *Washroom fixtures:* American Standard, Delta, Sloan Valve. *Washroom/shower partitions:* Santana. *Windows:* Litex.

Vestal High School, Additions and Alterations ....p. 180-181
Athletic equipment: Draper. *Auditorium/assembly furniture, Bleachers/Grandstands:* Irwin Seating. *Brick/Masonry:* Glen-Gery. *Cabinets:* Case Systems, Wood Metal Industries. *Cafeteria furniture:* KI. *Card systems:* Galaxy. *Carpet:* Mannington. *Ceilings:* Armstrong. *Ceramic tile:* Crossville, Dal-Tile. *Chalkboards:* Polyvision. *Classroom furniture:* HON. *Communications systems:* Dukane. *Computer furniture:* HON. *Door hardware:* Stanley. *Doors:* Algoma Hardwoods, EFCO, Special-Lite. *Draperies/Blinds:* Draper. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* Larsen's, SimplexGrinnell. *Flooring:* Armstrong, Mannington. *Hand-drying equipment:* Bradley. *HVAC control devices:* Automated Logic. *HVAC units, IAQ devices:* Trane. *Indoor lighting:* Lithonia, Peerless. *Insulation:* Certainteed, Dryvit. *Kitchen equipment:* Champion, Crescor, Keeting, Lincoln, South Bend. *Lockers:* List Industries, Tufftec. *Markerboards:* Polyvision. *Movable partitions/walls:* Modernfold. *Office furniture:* HON. *Paint:* Sherwin-Williams. *Physical-education flooring:* Robbins Sport Surfaces. *Plumbing:* Bradley, Chicago Faucet, Elkay, Kohler, Sloan Valve. *Roofing:* Carlisle, Met Fab. *Scoreboards/Clocks:* Daktronics, Nevco. *Security systems:* Hilti, Pelco. *Signage:* Metallic Arts, Mohawk. *Washroom accessories:* Bradley. *Washroom fixtures:* Bradley, Sloan Valve. *Washroom/shower partitions:* Santana. *Windows:* EFCO, Litex. *Wire management:* Hubbell.

BLDD Architects, Inc.

100 Merchant St. • Decatur, IL 62523
(217)429-5105

Millstadt Consolidated School Primary Center ....p. 33
Athletic equipment: Performance Sports Systems. *Auditorium/assembly furniture:* HON. *Brick/Masonry:* Interstate Brick Co. *Cabinets:* Wilsonart. *Cafeteria furniture:* HON. *Carpet:* Shaw. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Childcare furniture:* Virco. *Classroom furniture:* HON. *Clocks/Time management:* Visiplex Technologies. *Communications systems:* Atlas Sound, GE, General Cable, Panduit, SimplexGrinnell. *Door hardware:* Hager, Rockwood, Schlage. *Doors:* EFCO, Graham, Mesker Door. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* Elkay. *Emergency lighting:* Cooper Lighting. *Fire/Life-safety systems:* Ames, Larsen's, Potter Roemer, SimplexGrinnell, Viking. *Flooring:* Armstrong, Mannington. *Hand-drying equipment:* Bradley. *HVAC control devices:* Trane. *HVAC units:* McQuay, Trane. *IAQ devices:* Krueger, Reznor. *Indoor lighting:* Cooper Lighting. *Insulation:* Gaco Western, Johns Manville. *Kitchen equipment:* Advance Tabco, American Panel, Avtec, Continental, Hoshizaki, Nexel, Nor-Lake, Servco. *Library/media center furniture:* Stelter. *Lockers:* Republic Storage Systems. *Locks:* Schlage. *Lounge furniture:* HON. *Markerboards:* Claridge. *Movable partitions/walls:* Hufcor. *Multipurpose areas furniture, office furniture:* HON. *Other:* Kinetics, Specrail, Tectum. *Paint:* Devoe, Glidden. *Plumbing:* Armstrong, Fulton. *Roofing:* Firestone Building Products. *Scoreboards/Clocks:* SimplexGrinnell. *Security systems:* SimplexGrinnell. *Signage:* Gemini, Mohawk Sign Systems. *Washroom accessories:* Bradley. *Washroom fixtures:* Eljer, Elkay, Toto, Watts. *Washroom/shower partitions:* Flush Metal Partition. *Windows:* EFCO. *Wire management:* Panduit.

Blitch Knevel Architects

757 St. Charles Ave. • New Orleans, LA 70130
(504)524-4634

Nicholls State University, Vernon F. Galliano Hall Cafeteria Renovation ....p. 182-183
Cafeteria furniture: Sauder, Shafer. *Carpet:* Patcraft. *Ceilings:* Armstrong, USG. *Ceramic tile:* American Olean. *Indoor lighting:* Forecast, Tech Lighting. *Paint:* Sherwin-Williams. *Signage:* ASI Modulex. *Washroom accessories:* Bobrick.

BLRB Architects, PS

1145 Broadway Plaza, Suite 1200
Tacoma, WA 98402 • (253)627-5599

***Garfield High School, Renovation/Addition ....p. 174-175**
No supplier information available.

Brown Reynolds Watford Architects, Inc.

3535 Travis St., Suite 250 • Dallas, TX 75204
(214)528-8704

Dallas County Community College District, El Centro College, West Campus .... p. 116
ADA/Compliance equipment: Horton Automatics. *Brick/Masonry:* Cloud Ceramics, Interstate Brick. *Carpet:* Shaw. *Ceilings:* USG. *Ceramic tile:* Atlas Concorde, Dal-Tile, Lea Ceramiche. *Classroom furniture:* Artoplex, Herman Miller. *Communications systems:* Ortronics. *Computer furniture:* Artoplex, Bretford. *Computers:* Dell. *Door hardware:* Pemko, Precision, Stanley. *Doors:* Redi-Frame, VT Industries. *Drinking fountains:* Halsey Taylor. *Elevators:* ThyssenKrupp. *Flooring:* Forbo, Johnsonite. *Hand-drying equipment:* Bobrick. *HVAC units:* Evapco, McQuay. *Indoor lighting:* Focal Point Lighting, Lumetta, Vibia. *Insulation:* Bonded Logic, Certainteed. *Library/media center furniture:* Bretford, Herman Miller. *Lockers:* Lyon Workplace Products. *Locks:* Best Access. *Lounge furniture:* Integra. *Markerboards:* Claridge. *Movable partitions/walls:* Modernfold. *Multipurpose areas furniture:* All Seating, Bretford. *Office furniture:* Artoplex, Herman Miller. *Other:* US Railing. *Paint:* Sherwin-Williams. *Plumbing:* JR Smith. *Roofing:* Johns Manville. *Signage:* 290 Signs. *Washroom accessories:* Bobrick. *Washroom fixtures:* Eljer, Sloan Valve. *Washroom/shower partitions:* Bobrick. *Windows:* Vistawall.

Brave/Architecture

4617 Montrose Blvd., Suite C230
Houston, TX 77006 • (713)524-5858

University of Houston, Jack J. Valenti School of Communication, Computer Lab Renovation ....p. 184
Carpet: Lees. *Ceilings:* Armstrong. *Ceilings:* USG. *Classroom furniture:* Izzy Design, Teknion. *Door hardware:* Sargent. *Doors:* Vistawall. *Emergency lighting:* Lithonia. *Flooring:* Armstrong. *HVAC units:* Liebert. *Indoor lighting:* Lightolier, Lithonia. *Lounge furniture:* Gunlocke, Teknion. *Paint:* Benjamin Moore. *Wire management:* Wiremold.

Bruner/Cott & Associates

130 Prospect St. • Cambridge, MA 02139
(617)492-8400

Carpet: Patcraft. *Ceilings:* Armstrong. *Ceramic tile:* Eco-Tech. *Classroom furniture:* Haworth. *Door hardware:* Rockwood. *Drinking fountains:* Elkay. *Elevators:* Thyssen Krupp. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Eco-Tech. *Hand-drying equipment:* Kimberly Clark. *Indoor lighting:* Ledalite, Lightolier. *Insulation:* Dow Corning. *Locks:* Schlage. *Lounge furniture, multipurpose areas furniture, office furniture:* Haworth. *Paint:* PPG. *Roofing:* Carlisle. *Skylights:* Super Sky Products. *Washroom accessories:* Renown. *Washroom fixtures:* Caroma.

Cabinets: Holland Millwork. *Carpet:* Lees, Mannington. *Flooring:* Dal-Tile. *HVAC units:* Trane. *Indoor lighting:* Alinea, Hatco, Shaper. *Kitchen equipment:* Perkins. *Movable partitions/walls:* Panelfold, USG. *Paint:* Benjamin Moore. *Roofing:* Versico. *Windows:* EFCO.

Buchart Horn, Inc./BASCO Associates

445 W. Philadelphia St. • York, PA 17401
(717)852-1449

Athletic equipment: Porter Athletic Equipment. *Bleachers/Grandstands:* Gymnasium & Health Equipment. *Brick/Masonry:* Sika, Soundblox. *Cafeteria furniture:* Virco. *Carpet:* Collins & Aikman. *Ceilings:* USG. *Ceramic tile:* Dal-Tile, Royal Mosa. *Door hardware:* Kawneer. *Doors:* Algoma Hardwoods, Kawneer, Pella. *Elevators:* Otis. *Emergency lighting:* Architectural Area Luminaire. *Flooring:* Aacer Flooring, Forbo. *Hand-drying equipment:* Bradley. *HVAC control devices, HVAC units:* Trane. *Insulation:* Firestone Building Products. *Kitchen equipment:* Bally, Commercial Stainless Steel. *Lockers:* Republic Storage Systems. *Markerboards:* Polyvision. *Movable partitions/walls:* Modernfold. *Office furniture:* Da-Lite. *Other:* Balco, Midwest Folding Products, Penco Products, WP Hickman. *Paint:* Sherwin-Williams. *Physical-education flooring:* Aacer Flooring. *Plumbing:* Bradley. *Roofing:* AEP Span. *Signage:* Intelligent Signage, Matthews International. *Washroom accessories:* Bobrick. *Washroom fixtures:* Bradley. *Washroom/shower partitions:* Global Partitions. *Windows:* Pella. *Wire management:* Draper.

Buehrer Group Architecture & Engineering, Inc.

314 Conant St. • Maumee, OH 43537
(419)893-9021

Athletic equipment: Draper. *Brick/Masonry:* Glen-Gery. *Cabinets:* Stevens Industries. *Cafeteria furniture:* KI. *Carpet:* Patcraft. *Ceilings:* Armstrong. *Ceramic tile:* American Olean. *Classroom furniture:* KI. *Clocks/Time management:* DC Digital. *Communications systems:* Cisco. *Computer furniture:* Fleetwood. *Computers:* Hewlett Packard. *Door hardware:* LCN Closers, Sargent, Schlage. *Doors:* Capital Aluminum, Kawneer. *Drinking fountains:* Oasis. *Emergency lighting:* Lithonia. *Flooring:* Armstrong. *Hand-drying equipment:* Bradley, Gamco. *HVAC control devices, HVAC units, IAQ devices:* Trane. *Indoor lighting:* Lithonia. *Insulation:* Owens Corning. *Laundry equipment:* Whirlpool. *Library/media center furniture:* Sauder, Worden. *Lockers:* Republic Storage Systems. *Locks:* Schlage. *Markerboards:* Marsh. *Movable partitions/walls:* Modernfold. *Office furniture:* HON. *Paint:* Sherwin-Williams. *Physical-education flooring:* Armstrong. *Playground equipment*: Gametime. *Plumbing:* Kohler. *Roofing:* Durolast. *Security systems:* Maxsys. *Signage:* Ace Sign Systems. *Skylights:* Major Industries. *Washroom accessories:* Bradley, Gamco. *Washroom fixtures:* Willoughby. *Washroom/shower partitions:* Santana. *Windows:* Winco. *Wire management:* Wiremold.

Athletic equipment: Draper. *Cabinets:* Stevens Industries. *Cafeteria furniture:* KI. *Carpet:* Collins & Aikman. *Ceilings:* Certainteed. *Ceramic tile:* American Olean. *Classroom furniture:* KI. *Clocks/Time management:* DC Digital. *Communications systems:* Cisco. *Computer furniture:* Paragon. *Computers:* Dell, Hewlett Packard. *Door hardware:* Besam. *Doors:* Cleveland Vicon. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Azrock. *HVAC units:* McQuay. *Indoor lighting:* Lithonia. *Insulation:* Knauf. *Kitchen equipment:* Kolpak, TRUE, Victory. *Laundry equipment:* Maytag. *Library/media center furniture:* Brodart. *Lockers:* Republic Storage Systems. *Locks:* Best Access. *Markerboards:* Pro-Steel. *Movable partitions/walls:* Hufcor. *Office furniture:* HON. *Paint:* ICI Paints. *Physical-education flooring:* Connor. *Playground equipment*: Miracle Playground Equipment. *Plumbing:* Zurn. *Roofing:* Certainteed. *Science furniture:* Stevens Industries. *Security systems:* DSC Aritech. *Signage:* Columbus Graphics. *Washroom accessories:* A&J Washroom Accessories. *Washroom fixtures:* Zurn. *Washroom/shower partitions:* Scranton Products. *Waste receptacles*: Rubbermaid. *Windows:* EFCO. *Wire management:* Wiremold.

Athletic equipment: Draper. *Brick/Masonry:* Glen-Gery. *Cabinets:* Stevens Industries. *Cafeteria furniture:* KI. *Carpet:* Collins & Aikman. *Ceramic tile:* American Olean. *Classroom furniture:* KI. *Clocks/Time management:* DC Digital. *Communications systems:* Cisco. *Computer furniture:* Paragon. *Computers:* Dell, Hewlett Packard. *Door hardware:* Dorma. *Doors:* Mohawk. *Drinking fountains:* Oasis. *Emergency lighting:* Columbia Lighting. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Armstrong. *HVAC units:* McQuay. *Indoor lighting:* Columbia Lighting. *Insulation:* Owens Corning. *Kitchen equipment:* Delfield, Garland, Victory. *Laundry equipment*: Maytag. *Library/media center furniture:* Brodart. *Lockers:* Republic Storage Systems. *Locks:* Dorma. *Markerboards:* Marsh. *Movable partitions/walls:* Modernfold. *Office furniture:* HON. *Paint:* Sherwin-Williams. *Physical-education flooring:* Connor. *Playground equipment*: Gametime. *Plumbing:* Crane Plastics, Zurn. *Roofing:* Duro-Last, Johns Manville. *Science furniture:* Stevens Industries. *Security systems:* Dobil. *Washroom accessories:* Bradley. *Washroom fixtures:* Crane Plastics, Kohler. *Washroom/shower partitions:* Santana. *Waste receptacles*: Rubbermaid. *Windows:* Winco. *Wire management:* Wiremold.

Cannon Design

1100 Clark Ave. • St. Louis, MO 63102
(314)241-6250

Brick/Masonry: Cassion, Cloud Ceramics, Geiger. *Cabinets:* Trespa. *Carpet:* Karastan, Milliken. *Ceilings:* Armstrong, Gordon, USG. *Ceramic tile:* Dal-Tile. *Chalkboards:* Claridge. *Doors:* Marshfield, Overhead Door. *Draperies/Blinds:* Abby Simmons. *Draperies/Blinds:* Mechoshade. *Drinking fountains:* Hydro Dynamics. *Elevators:* Otis. *Fire/Life-safety systems:* Greenheck, WR Grace. *Flooring:* Armstrong, Desco, Gerflor, Mondo, Tarkett. *HVAC control devices:* Honeywell. *IAQ devices:* Airflow Systems. *Indoor lighting:* Levitron. *Markerboards:* Claridge. *Movable partitions/walls:* Designtex, Modernco. *Paint:* Sherwin-Williams. *Plumbing:* Brass Craft, Chicago Faucet, Elkay, Ferguson, Proflo. *Roofing:* Bilco, Nystrom, Vincent, VM Zinc. *Science furniture:* Epoxyn, Fisher Hamilton, NuAire. *Washroom accessories:* Bobrick. *Windows:* Viracon.

Cannon Design

100 Cambridge St., Suite 1400
Boston, MA 02114 • (617)742-5440

Brick/Masonry: Empire Masonry Corp. *Carpet:* Collins & Aikman, Mannington. *Ceilings:* Armstrong. *Ceramic tile:* Ecotech, Laticrete. *Chalkboards:* Forbo. *Communications systems:* GE. *Door hardware:* Ives, Kawneer, LCN Closers, Von Duprin. *Doors:* Marshfield Door System. *Drinking fountains:* Symmons. *Elevators:* Bay State Elevator, ThyssenKrupp. *Emergency lighting:* Light Control, Lithonia Lighting. *Fire/Life-safety systems:* Anvil Star, Viking. *Flooring:* Forbo. *Hand-drying equipment:* Elkay, Sloan Valve. *IAQ devices:* Metalaire. *Indoor lighting:* Nesco, Optra, Spectrum Lighting. *Insulation:* Dow. *Kitchen equipment:* GE, Percys. *Laundry equipment:* Bobrick. *Locks:* Ives, Kawneer, Von Duprin. *Markerboards:* Forbo. *Movable partitions/walls:* Conwed. *Paint:* ICI Devoe. *Physical-education flooring:* Mondo. *Plumbing:* Symmons. *Roofing:* Sarnafil. *Washroom accessories:* Bobrick, Guardner Glass Products. *Washroom fixtures:* Best Bath, Sloan Valve, Symmons. *Washroom/shower partitions:* Capitol Partitions, Comtec, Santana. *Waste receptacles:* Allied Waste Industries. *Windows:* PPG.

Cannon Moss Brygger & Associates

401 Douglas St., Suite 500
Sioux City, IA 51101 • 712-274-2933

Athletic equipment: Porter Athletic Equipment. *Brick/Masonry:* Endicott Clay Products, Sioux City Brick. *Carpet:* Interface. *Ceramic tile:* Crossville. *Clocks/Time management:* Verdin. *Communications systems:* Bogen. *Door hardware:* LCN Closers, Reese, Rockwood, Schlage, Stanley, Von Duprin. *Doors:* Kawneer, Steelcraft, VT Industries. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* Elkay. *Flooring:* Crossville. *HVAC control devices:* KMC Control. *HVAC units:* Trane. *Lockers:* Superior. *Markerboards:* Polyvision. *Other:* Atas. *Paint:* PPG. *Physical-education flooring:* Robbins Sports Surfaces. *Roofing:* Mule-Hide. *Signage:* ASI. *Washroom accessories:* A&J Washroom Accessories. *Washroom fixtures:* Bradley, Church, Delta, Eljer, Elkay, Zurn. *Washroom/shower partitions:* Capitol Partitions, Comtec, Santana. *Windows:* Kawneer. *Wire management:* Cope.

CBLH Design

7850 Freeway Circle • Cleveland, OH 44130
(440)243-2000

Auditorium/assembly furniture: Irwin Seating. *Carpet:* Lees. *Ceilings:* Armstrong. *Ceramic tile:* Stone Peak. *Door hardware:* Von Duprin. *Doors:* Steelcraft. *Draperies/Blinds:* Draper. *Drinking fountains:* Elkay. *Elevators:* Schindler. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Forbo. *HVAC control devices:* Johnson Controls. *HVAC units:* York. *Indoor lighting:* Gotham, Lithonia. *Lounge furniture:* Carolina, KI, Krug. *Movable partitions/walls:* Moderco. *Office furniture:* Haworth. *Paint:* Sherwin-Williams. *Roofing:* Carlisle. *Washroom accessories:* Bobrick. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* Bobrick. *Windows:* Kawneer.

CBT Architects

110 Canal St. • Boston, MA 02114
(617)646-5287

Auditorium/assembly furniture: Hussey Seating. *Carpet:* Atlas, Durkan. *Ceilings:* Armstrong. *Ceramic tile:* American Olean. *Classroom furniture:* Herman Miller, KI, Knoll, Leland, Knoll. *Door hardware:* LCN Closers, Pemko, Rockwood, Schlage, Von Duprin. *Doors:* Al-

goma Hardwoods. *Elevators:* ThyssenKrupp. *Emergency lighting:* Isolite. *Flooring:* Allstate, Bi-Fusion, Forbo, Tarkett. *Indoor lighting:* Belfer, Insight, Lightolier, Lithonia, Portfolio. *Insulation:* Certainteed, Johns Manville. *Lounge furniture:* Baker, Beacon Parsons, Dessin David Edwards, Poltrona. *Office furniture:* Leland, Steelcase. *Paint:* Sherwin-Williams. *Roofing:* Carlisle. *Washroom fixtures:* American Standard, Delta, Elkay. *Windows:* Eagle, Kawneer.

CetraRuddy

584 Broadway, Suite 401 • New York, NY 10012
(212)941-9801

Peter Cooper Village/Stuyvesant Town, Oval Kids .... p. 215
Ceramic tile: Fritztile. *HVAC units:* Daikin. *Indoor lighting:* Louis Poulsen. *Kitchen equipment:* GE. *Multipurpose areas furniture:* Bernhardt, Fatboy, Fritz Hansen, Vitra. *Paint:* Benjamin Moore. *Playground equipment*: American Leisure.

Champlin/Haupt Architects

424 E. Fourth St., Fourth Floor
Cincinnati, OH 45202 • 513-241-4474

Wright State University, Boonshoft School of Medicine .... p. 158
No supplier information available.

Civica, LLC - Architecture and Urban Design

8323 N.W. 12th St., Suite 106
Doral, FL 33126 • (305)593-9959

City of Hialeah Educational Academy High School .... p. 76
No supplier information available.

Divine Savior Lutheran Academy Middle School .... p. 60
No supplier information available.

Mater Academy East Charter High School p. 77
No supplier information available.

The Clark Enersen Partners

1010 Lincoln Mall, Suite 200
Lincoln, NE 68508 • (402)477-9291

Hastings Middle School .... p. 61
No supplier information available.

Clark Nexsen Architecture & Engineering

4000 Westchase Blvd. • Raleigh, NC 27607
(919)828-1876

Virginia Military Institute, 3rd Barracks .. p. 186-187
Cafeteria furniture: KI. *Carpet:* Shaw. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Clocks/Time management:* Verdin. *Communications systems:* Newcomb Communications. *Door hardware:* Hager, LCN Closers, Von Duprin. *Doors:* VT Industries. *Draperies/Blinds:* Mecho-Shade. *Drinking fountains:* Oasis. *Elevators:* Otis. *Emergency lighting:* Lightalarms. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Armstrong. *HVAC control devices:* Trane. *HVAC units:* Bell & Gossett, Evapco, Greenheck, Trane. *Indoor lighting:* Exceline, Lightolier. *Insulation:* Johns Manville. *Locks:* Best Access. *Multipurpose areas furniture:* Cabot Wrenn. *Paint:* Sherwin-Williams. *Roofing:* Carlisle, Peterson Aluminum. *Washroom accessories:* American Specialties, Inc. *Washroom fixtures:* Elkay, Kohler, Speakman. *Washroom/shower partitions:* Bobrick. *Windows:* Kawneer, Quaker Doors & Windows.

Clark Nexsen, Architecture & Engineering

6160 Kempsville Circle • Norfolk, VA 23502
(757)455-5800

Old Dominion University, Powhatan Sports Complex .... p. 158
No supplier information available.

Tidewater Community College, Regional Automotive Training Center .... p. 159
No supplier information available.

Collaborative – TMP

500 Madison Ave., Suite 100
Toledo, OH 43604 • (248)338-4561

Penta Career Center .... p. 160
Brick/Masonry: Best Block, Pacific Clay Products. *Cabinets:* Peter Pepper. *Carpet:* Durkan, Interface, Karastan. *Ceilings:* 3Form, USG. *Ceramic tile:* Crossville, Dal-Tile, Geoquartz, Trend. *Classroom furniture:* Izzy, V/S. *Doors:* Algoma Hardwoods. *Draperies/Blinds:* Draper. *Flooring:* Amtico, Armstrong, Johnsonite, Mira. *Library/media center furniture:* Brayton, Stylex, V/S. *Lounge furniture:* Brayton, Steelcase. *Movable partitions/walls:* Maharam. *Office furniture:* Steelcase. *Paint:* ICI. *Physical-education flooring:* Eco.

Cooper Carry

191 Peachtree St. N.E., Suite 2400
Atlanta, GA 30303 • (404)237-2000

North Georgia College & State University, Student Recreation Center .... p. 114
No supplier information available.

University of Georgia, Tate Student Center Renovation and Expansion .... p. 115
No supplier information available.

Davis Architects, Inc.

120 23rd St. S. • Birmingham, AL 35222
(205)322-7482

Hewitt-Trussville High School .... p. 78
Athletic equipment: Draper. *Auditorium/assembly furniture:* KI. *Bleachers/Grandstands:* Irwin Seating. *Cabinets:* LSI. *Carpet:* Bentley Prince Street, Interface, Shaw. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Classroom furniture:* KI. *Clocks/Time management:* Dukane. *Communications systems:* Dukane. *Computer furniture:* KI. *Door hardware:* LCN Closers, Rockwood, Sargent. *Doors:* Curries, Graham. *Draperies/Blinds:* Draper. *Drinking fountains:* Sunroc. *Elevators:* Schindler. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Constantine Commercial. *Hand-drying equipment:* Xlerator. *HVAC control devices:* Johnson Controls. *HVAC units:* Trane. *Kitchen equipment:* Advance Tabco, Hobart, Master Built. *Library/media center furniture:* Bretford, KI. *Lockers:* List Industries. *Markerboards:* Polyvision. *Multipurpose areas furniture:* KI. *Office furniture:* Knoll. *Paint:* Sherwin-Williams. *Physical-education flooring:* Robbins Sports Surfaces. *Roofing:* Sarnafil. *Science furniture:* Campbell Rhea. *Scoreboards/Clocks:* Daktronics. *Security systems:* Pelco. *Washroom accessories:* Bradley. *Washroom fixtures:* Bradley, Kohler. *Windows:* Kawneer.

Design Architects, Inc.

1805 Industrial Park Drive • Marion, IL 62959
(618)998-0075

Waterloo High School .... p. 80
ADA/Compliance equipment: Evapco, Lochinvar, Trane. *Athletic equipment:* Aalco. *Auditorium/assembly furniture:* Irwin Seating. *Bleachers/Grandstands:* Interkal. *Brick/Masonry:* Hanson Brick. *Cabinets:* Polyvision, Stevens. *Card systems:* Best Access Systems. *Carpet:* Shaw. *Ceilings:* Celotex, USG. *Ceramic tile:* American Olean. *Communications systems:* Gentex, Notifier. *Door hardware:* Ives, LCN Closers, Von Duprin. *Doors:* EFCO, Eggers. *Draperies/Blinds:* Inpro. *Drinking fountains:* Halsey Taylor. *Elevators:* ThyssenKrupp. *Emergency lighting:* Cooper Lighting. *Fire/Life-safety systems:* Reliable, Superior. *Flooring:* Armstrong, Roppe. *Hand-drying equipment:* Wallgate Limited. *HVAC control devices:* Johnson Controls. *HVAC units:* Evapco, Lochinvar, Trane. *Indoor lighting:* Cooper Lighting. *Insulation:* Certainteed. *Kitchen equipment:* Eagle, Hobart, Vulcan. *Lockers:* Superior. *Locks:* Best Access Systems. *Markerboards:* Claridge. *Other:* Closet Maid, Landscape Forms, Pawling. *Paint:* Sherwin-Williams. *Physical-education flooring:* Aacer, Connor. *Plumbing:* Jay R Smith, Sloan Valve. *Roofing:* Carlisle. *Science furniture:* Fisher Hamilton. *Signage:* API Sign Systems. *Washroom accessories:* Bobrick. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* Columbia Partitions. *Windows:* EFCO. *Wire management:* Cooper B-Line.

DesignGroup

515 E. Main St. • Columbus, OH 43215
(614)255-2247

Cedarville University, Center for Biblical and Theological Studies .... p. 117
Brick/Masonry: Belden Brick. *Carpet:* Interface. *Ceilings:* USG. *Ceramic tile:* American Olean. *Classroom furniture:* HON, KI, Sitwell. *Communications systems:* Lutron. *Door hardware:* AHB Mfg., Hager, Ives, Rockwood, Ryobi, Schlage, Stanley. *Doors:* Oshkosh. *Draperies/Blinds:* Mechoshade. *Drinking fountains:* Bradley. *Elevators:* Schindler. *Emergency lighting:* Capri Lighting, Hubbell Lighting, Kawneer, Kurt Versen, Omega Lighting. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Retro Plate, Wausau Tile. *HVAC control devices:* York. *HVAC units, IAQ devices:* York. *Indoor lighting:* Capri Lighting, Hubbell Lighting, Kurt Versen, Omega Lighting. *Insulation:* Owens Corning. *Locks:* Stanley. *Lounge furniture:* Brayton, Bretford, Carolina, transformations. *Markerboards:* Best Rite, Egan. *Movable partitions/walls:* Panelfold. *Office furniture:* Buzz, Haworth, Kimball. *Other:* Duvinage Corp., Senergy. *Paint:* PPG. *Plumbing:* Elkay. *Roofing:* Carlisle. *Security systems:* SimplexGrinnell. *Signage:* Contemporary Plastics. *Washroom accessories:* Bradley. *Washroom fixtures:* Toto. *Washroom/shower partitions:* Bradley. *Windows:* Kawneer, Oldcastle. *Wire management:* Cope Ladder.

DLA Architects, Ltd.

462 N. McLean Blvd. • Elgin, IL 60123
(630)230-0420

Elgin Academy, Harold D. Rider Family Media, Science and Fine Arts Center Project .... p. 38
No supplier information available.

DLR Group

6225 N. 24th St., Suite 250
Phoenix, AZ 85016 • (602)381-8580

Phoenix College, Fine Arts Building .... p. 118
ADA/Compliance equipment: Best Access, Stanley. *Brick/Masonry:* Western Block. *Cabinets:* TMI Systems. *Carpet:* Interface. *Ceramic tile:* Armstrong. *Door hardware:* Best Access, Stanley. *Markerboards:* Claridge. *Signage:* Mountain States Specialties. *Windows:* Southwest Aluminum.

DLR Group

901 Fifth Ave., Suite 700 • Seattle, WA 98164
(206)461-6000

***Pioneer Middle School .... p. 59**
Brick/Masonry: Basalite. *Cabinets:* Westmark. *Cafeteria furniture:* American Table, Sit-On-It. *Carpet:* Collins & Aikman. *Ceilings:* Armstrong World Industries. *Classroom furniture:* Bretford, Herman Miller, SIS-USA. *Door hardware:* Corbin Russwin. *Doors:* VT Industries. *Draperies/Blinds:* Bali, Draper. *Elevators:* Kone. *Fire/Life-safety systems:* Siemens. *Flooring:* Armstrong. *Indoor lighting:*

Lightolier, Widelite. *Library/media center furniture:* Brandrud, Bretford, Westmark. *Locks:* Andover Controls. *Lounge furniture, office furniture:* Herman Miller. *Paint:* Radda. *Physical-education flooring:* Action Floor Systems. *Plumbing:* Eljer, Elkay. *Science furniture:* SIS-USA. *Security systems:* Siemens.

DLR Group

1050 20th St., Suite 250 • Sacramento, CA 95811
(916)446-0206

River City High School, West Sacramento Recreational Center .... p. 216
ADA/Compliance equipment: Hankin Specialty Equipment. *Athletic equipment:* Mat Mover, Porter Athletic Equipment. *Bleachers/Grandstands:* Dant Clayton, Hussey Seating, National Recreation Systems. *Brick/Masonry:* Basalite. *Cabinets:* Dow Diversified. *Carpet:* Collins & Aikman, Lees. *Ceilings:* Armstrong, USG. *Ceramic tile:* Capitol City Tiles, Dal-Tile. *Classroom furniture:* Dow. *Door hardware:* Glynn Johnson, Hager, Ives, LCN Closers, Pemko, Rixson, Rockwood, Schlage, Stanley, Trimco, Von Duprin. *Doors:* Cornell, Marshfield. *Draperies/Blinds:* H&H Specialties. *Drinking fountains:* Acorn. *Elevators:* Otis. *Fire/Life-safety systems:* Fire Flex, Siemens, Transbay, Wheelock. *Flooring:* Armstrong, Dal-Tile, Forbo. *Hand-drying equipment:* World Dryer. *HVAC units:* AAON, Cal-Flex, Ductmate, Johns Manville, OMNI Duct, Ruskin. *Lockers:* Capitol Partitions, Comtec, Penco Products. *Locks:* Best Access, Schlage. *Markerboards:* Polyvision. *Movable partitions/walls:* Advance Equipment Corp. *Paint:* Frazee. *Physical-education flooring:* Balco, Robbins Sports Surfaces, Taraflex. *Playground equipment*: Steelcraft, Western Water Features. *Plumbing:* Just Mfg., Nibco, Pacific Seismic, Unistrut, Watts. *Scoreboards/Clocks:* Daktronics. *Security systems:* Altronix, Battery Control, Bosch, Interlogix. *Washroom accessories:* Bradley. *Washroom/shower partitions:* Santana. *Windows:* Royal Glass. *Wire management:* Wiremold.

Dore & Whittier Architects, Inc.

206 Merrimac St., Building 7
Newburyport, MA 01950 • (978)499-2999

King Philip Regional High School .... p. 81
Athletic equipment: Draper. *Auditorium/assembly furniture, Bleachers/Grandstands:* Hussey Seating. *Cabinets:* Kewaunee. *Carpet:* Mohawk. *Ceilings:* Celotex. *Ceramic tile:* Dal-Tile. *Clocks/Time management:* Sapling. *Communications systems:* Vodavi. *Computers:* Dell. *Door hardware:* Ingersoll Rand, Schlage. *Doors:* VT Industries. *Drinking fountains:* Halsey Taylor. *Elevators:* Otis. *Fire/Life-safety systems:* Edwards System Technologies, Hilti. *Flooring:* Mannington. *Hand-drying equipment:* American Specialties. *HVAC control devices:* Delta Controls, Johnson Controls. *HVAC units:* AAON, American Standard, Berko, Greenheck, Rittling. *Indoor lighting:* Gotham, Lite Control, Lithonia. *Insulation:* Certainteed, Dow, Owens Corning. *Kitchen equipment:* Bally, Blodgett, Edlund, Groen, Vulcan. *Lockers:* Penco Products. *Locks:* Ingersoll Rand. *Markerboards:* Polyvision. *Paint:* PPG. *Physical-education flooring:* Robbins Sports Surfaces. *Plumbing:* American Standard, Chicago Faucets, Sloan Valve, Symmons, Victaulic, Watts. *Roofing:* Sarnafil. *Scoreboards/Clocks:* Daktronics. *Security systems:* Signet Electronic Systems. *Signage:* Best Sign Systems, Gemini. *Washroom accessories:* American Specialties. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* American Accessories. *Windows:* EFCO. *Wire management:* Hubbell, Wiremold.

Dougherty + Dougherty Architects LLP

3194 D Airport Loop Drive
Costa Mesa, CA 92626 • (714)427-0277

Mount San Antonio College, Music Building Addition .... p. 119
Brick/Masonry: ORCO. *Cabinets:* Lam-Tech Corp. *Carpet:* Mohawk. *Clocks/Time management:* Primex. *Emergency lighting:* Prisma. *Fire/Life-safety systems:* Thermafiber. *Flooring:* Armstrong. *Indoor lighting:* Prisma. *Insulation:* Johns Manville. *Markerboards:* Tribest. *Paint:* Dunn Edwards. *Roofing:* Siplast. *Washroom accessories:* Bobrick. *Windows:* Kawneer.

EAPC

121 E. Broadway Ave. • Bismarck, ND 58501
(701)258-3116

Bismarck State College, National Energy Center of Excellence .... p. 120
No supplier information available.

EI Associates

2001 N. Front St., Building #3
Harrisburg, PA 17102 • (717)233-4556

Paradise Elementary School .... p. 39
Brick/Masonry: Glen-Gery, Trenwyth, York Building Products. *Cabinets:* Case Systems. *Cafeteria furniture:* Regency. *Carpet:* Interface. *Ceilings:* Sound Seal, USG. *Ceramic tile:* Dal-Tile. *Clocks/Time management:* Monarch. *Communications systems:* Middle Atlantic Systems. *Door hardware:* Sargent. *Doors:* VT Industries. *Draperies/Blinds:* Draper. *Drinking fountains:* Oasis. *Elevators:* Schindler. *Emergency lighting:* HE Williams, Kirlin. *Fire/Life-safety systems:* Warren Technology, Weir Floway Fire Pump. *Flooring:* Armstrong, Eco Surfaces. *HVAC control devices, HVAC units:* Sensus. *IAQ devices:* Tridim Filter. *Indoor lighting:* HE Williams, Kirlin. *Insulation:* Carlisle, Dow, Johns Manville. *Kitchen equipment:* Regency. *Library/media center furniture:* Brodart, Sherpa Concord. *Lockers:* Penco Products. *Locks:* Sargent. *Markerboards:* Claridge, Thoma. *Movable partitions/walls:* Modernfold. *Multipurpose areas furniture:* Performance Sports Systems. *Other:* Cayuga Concrete Pipe Co., Pittsburgh Stage, Spacesaver. *Paint:* MAB. *Physical-education flooring:* Action Floor Systems. *Playground equipment:* Playworld Systems. *Plumbing:* Hydra Stone, Kohler, Tyler Union. *Roofing:* IMETCO. *Security systems:* Warren Technology. *Signage:* Bayuk. *Washroom accessories:* American Specialties. *Washroom fixtures:* American Specialties. *Washroom/shower partitions:* Bobrick. *Windows:* Bilt-Best. *Wire management:* Lutron.

Emc2 Group Architects Planners, PC

1635 N. Greenfield Road, #144
Mesa, AZ 85205 • (480)830-3838

Mary Meredith K-12 School .... p. 161
No supplier information available.

EMO/ARCHITECTS, INC.

1126 Thomasville Road
Tallahassee, FL 32303-6272 • (850)222-8000

***Tallahassee Community College, Campus Master Plan .... p. 222**
No supplier information available.

EwingCole

100 N. Sixth St., Sixth Floor
Philadelphia, PA 19106 • (215)625-4119

Hamilton College, Kirner-Johnson Social Sciences Building .... p. 122-123
No supplier information available.

Einhorn Yaffee Prescott/EYP, Architecture and Engineering PC

412 Broadway • Albany, NY 12201
(518)431-3300

Purchase College-State University of New York, New 300-Bed Residence Hall .... p. 121
Card systems: GE. *Ceilings:* Armstrong. *Ceramic tile:* American Olean. *Door hardware:* Hager, Von Duprin. *Flooring:* Forbo. *Locks:* Best Access. *Paint:* Benjamin Moore. *Residence Hall furniture*: Butler Woodcrafters. *Windows:* Traco.

Fanning Howey

210 N. Lee St., Suite 208 • Alexandria, VA 22314
(703)519-9822

***Phelps Architecture, Construction and Engineering High School .... p. 176**
ADA/Compliance equipment: Garaventa. *Athletic equipment:* Performance Sports Systems. *Bleachers/Grandstands:* Maxam. *Brick/Masonry:* Glen-Gery. *Cabinets:* Leonard Peterson. *Cafeteria furniture:* KI. *Carpet:* Lees. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Classroom furniture:* American Office, KI, Sit On It. *Clocks/Time management:* Electric Time Co. *Communications systems:* Rauland-Borg. *Computer furniture:* American Office, KI, Sit On It. *Computers:* Dell. *Door hardware:* Dorma, Hager, Rockwood. *Doors:* Karona, Maiman, Oshkosh. *Draperies/Blinds:* Spring Window Fashions. *Drinking fountains:* Acorn. *Emergency lighting:* Katolight. *Fire/Life-safety systems:* Hilti, SimplexGrinnell, Tyco. *Flooring:* Altro, Armstrong, Arteffects, Roppe. *HVAC control devices:* Exhausto. *HVAC units:* McQuay. *IAQ devices:* AAON, AirKing, Greenheck. *Indoor lighting:* Atlantic, GE, LSI. *Kitchen equipment:* Blodgett, Cleveland Range, Delfield, GE. *Laundry equipment:* GE. *Library/media center furniture:* Bretford, Leonard Peterson. *Lockers:* Penco. *Lounge furniture, Office furniture:* KI. *Paint:* Duron. *Plumbing:* Bradley, Delta, Fiat, Proflo, Sloan Valve. *Roofing:* Firestone. *Scoreboards/Clocks:* Daktronics. *Security systems:* MC Dean. *Skylights:* Super Sky Products. *Washroom accessories:* Bobrick. *Washroom fixtures:* Bradley, Delta, Kohler. *Washroom/shower partitions:* Accurate Partitions. *Waste receptacles:* KI. *Windows:* Litex, Peerless.

FFKR Architects

730 Pacific Ave. • Salt Lake City, UT 84104
(801)521-6186

Brigham Young University, N. Eldon Tanner Building Addition .... p. 124
No supplier information available.

Flansburgh Architects

77 N. Washington St. • Boston, MA 02114
(617)367-3970

C.W. Morey Elementary School................. p. 40
Brick/Masonry: A. Jandris & Sons. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Door hardware:* Ingersoll Rand. *Doors:* Marshfield. *Elevators:* ThyssenKrupp. *Emergency lighting:* Lithonia. *Flooring:* Armstrong. *Indoor lighting:* Lithonia. *Lockers:* Republic Storage Systems. *Roofing:* Garland. *Washroom/shower partitions:* Santana. *Windows:* EFCO.

French Associates, Inc.

1600 Parkdale Road • Rochester, MI 48307
(248)656-1377

Brandon High School .... p. 189
Auditorium/assembly furniture: Irwin Seating. *Bleachers/Grandstands:* Southern Bleacher Co. *Cafeteria furniture:* Great Lakes Furniture. *Door hardware:* Detroit Door & Hardware. *Doors:* Detroit Door & Hardware. *Kitchen equipment:* Stafford Smith. *Lockers:* Steel Equipment Corp. *Locks:* Ingersoll-Rand. *Lounge furniture:* Great Lakes Furniture. *Plumbing:* Delta.

Wayne State University School of Medicine, Family Medicine Residency Practice at Crittendon Hospital .... p. 162
Carpet: SCI Floorcovering. *Ceramic tile:* Musante Tile. *Door hardware:* Trend Millwork. *Doors:* Trend Millwork. *Fire/Life-safety systems:* Detroit Automatic Sprinkler Co. *Locks:* Ingersoll-Rand.

Frevert-Ramsey-Kobes Architects-Engineers, PC

4445 Corporate Drive, Suite 126
West Des Moines, IA 50266 • (515)223-5100

Summit Middle School .... p. 62-63
Athletic equipment: Institutional Products. *Brick/Masonry:* Endicott, United Brick & Tile. *Cabinets:* TMI. *Carpet:* Patcraft. *Ceilings:* USG. *Ceramic tile:* American Olean. *Door hardware:* Sargent, Von Duprin. *Elevators:* ThyssenKrupp. *Fire/Life-safety systems:* Protex Central. *Flooring:* Armstrong. *HVAC control devices:* Johnson Controls. *HVAC units:* Desertaire, Trane. *Insulation:* Celotex, Certainteed. *Lockers:* Republic Storage Systems. *Markerboards:* Newline. *Movable partitions/walls:* Modernfold. *Paint:* Iowa Paint, Tnemec. *Roofing:* Carlisle. *Skylights:* Kalwall. *Washroom accessories:* American Specialties, Inc. *Washroom/shower partitions:* Bradley. *Windows:* Wausau.

Gallo Architects & Development Consultants, Inc. D.B.A. Gallo Herbert Lebolo

1311 W. Newport Center Drive, Suite A
Deerfield Beach, FL 33442 • (954)794-0300

Florida Atlantic University, Business Services Banquet Hall and Food Service Venue ....p. 207
ADA/Compliance equipment: Bobrick. *Cafeteria furniture:* Grand Rapids Chair. *Carpet:* Bigelow. *Carpet:* Mohawk. *Ceilings:* Armstrong. *Ceramic tile:* Iris US. *Door hardware:* Schlage. *Draperies/Blinds:* Lutron. *Emergency lighting:* Light Guard. *Indoor lighting:* Axis, Luxo. *Kitchen equipment:* Advanced Tabco, Alto Shaam, TRUE, Vulcan. *Lounge furniture:* Grand Rapids Chair. *Paint:* Sherwin-Williams. *Washroom accessories:* Bobrick.

The Geddis Partnership, A Professional Corporation

71 Old Post Road, PO Box 1020
Southport, CT 06890 • (203)256-8700

Fox Lane High School .... p. 82
Brick/Masonry: Carolina Ceramics. *Cabinets:* Collegedale. *Carpet:* Interface. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile, Summitville Quarrytile. *Chalkboards:* AARCO. *Door hardware:* Best Access. *Doors:* Acme. *Draperies/Blinds:* Draper. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Flooring:* Armstrong. *Hand-drying equipment:* American Standard. *HVAC units:* McQuay. *Insulation:* Owens Corning. *Lockers:* Lyon Metal Products. *Markerboards:* AARCO. *Paint:* Sherwin-Williams. *Roofing:* Firestone. *Washroom accessories:* Bobrick. *Washroom/shower partitions:* General Partitions. *Windows:* Vistawall.

Gensler

711 Louisiana St., Suite 300 • Houston, TX 77002
(713)844-0000

Mountain View College (Dallas County Community College District), Science & Allied Health Building .... p. 163
Carpet: Shaw. *Ceilings:* Eurostone. *Ceramic tile:* Dal-Tile. *Clocks/Time management:* American Signal. *Door hardware:* McKinney, Sargent. *Doors:* Curries, Piper Weatherford. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Flooring:* Bomanite. *Hand-drying equipment:* Bobrick. *HVAC units:* AAON, McQuay. *Indoor lighting:* Artemide, Lithonia, Prima. *Insulation:* Thermafiber. *Markerboards:* Newline. *Paint:* ICI. *Roofing:* GAF, Owens Corning. *Science furniture:* Kewaunee Scientific. *Washroom fixtures:* American Standard, Eljer, Sloan Valve. *Washroom/shower partitions:* Capitol Partitions, Comtec, Santana. *Waste receptacles*: Bobrick. *Windows:* United States Aluminum. *Wire management:* Wiremold.

Gignac & Associates, LLP

416 Starr St. • Corpus Christi, TX 78401
(361)884-2661

Lee H. Means Elementary School .... p. 41
ADA/Compliance equipment: Kimberly Clark. *Carpet:* Collins & Aikman. *Ceilings:* Armstrong. *Ceramic tile:* American Olean. *Door hardware:* Ives, Schlage, Von Duprin. *Doors:* American Door Products. *Draperies/Blinds:* KM Fabrics. *Drinking fountains:* Elkay. *Emergency lighting:* Lightolier. *Fire/Life-safety systems:* Ansul, Gem, Potter Roemer. *Flooring:* Azrock. *Hand-drying equipment:* World Dryer. *HVAC units:* York. *Indoor lighting:* Lightolier. *Insulation:* Certainteed. *Kitchen equipment:* Moduserve, Thermo-Kool. *Lockers:* Penco Products. *Locks:* Hager, Schlage. *Markerboards:* Best Rite. *Paint:* Sherwin-Williams. *Plumbing:* Crane Plastics, Kohler. *Roofing:* Firestone, Tredico. *Security systems:* Aqua Vault. *Signage:* Bayuk Graphic Systems, Metal Arts. *Washroom accessories:* Bobrick, Church, True Bro. *Washroom fixtures:* Sloan Valve. *Washroom/shower partitions:* Capitol Partitions, Comtec.

Gilbert Architects Inc.

626 N. Charlotte St. • Lancaster, PA 17603
(717)291-1077

Swiftwater Elementary Center .... p. 42
Athletic equipment: Jay Pro. *Bleachers/Grandstands:* Hussey Seating. *Cabinets:* Wilsonart. *Card systems:* Ingersoll Rand. *Carpet:* Collins & Aikman. *Ceilings:* Armstrong, Kemlite. *Ceramic tile:* Dal-Tile. *Communications systems:* Rauland Borg, Sapling. *Door hardware:* LCN Closers, Rockwood, Von Duprin. *Doors:* Steelcraft. *Elevators:* Otis. *Fire/Life-safety systems:* Fike, Firecontrol, Gast, Patterson. *Flooring:* Mannington, Roppe. *Indoor lighting:* Bega, Beta-Calco, Columbia Lighting, Emergilite, Finelite, Hubbell Lighting, Prescolite. *Insulation:* Owens Corning. *Kitchen equipment:* Beverage Aire, Captiveaire, Hobart, LowTemp, Victory, Winston. *Library/media center furniture:* Midlands, Worden. *Locks:* Schlage. *Movable partitions/walls:* Modernfold. *Paint:* Sherwin-Williams. *Physical-education flooring:* Aacer, Hillyard. *Plumbing:* Acorn, Guardian, Zurn. *Roofing:* Certainteed, Firestone. *Scoreboards/Clocks:* Nevco. *Security systems:* Notifier. *Skylights:* Kalwall, Structures Unlimited. *Washroom/shower partitions:* Comtec, Santana. *Windows:* EFCO, Pella.

GMB Architecture +Engineering

85 E. Eighth St., Suite 200 • Holland, MI 49423
(616)796-0200

Grand Rapids Community College, Vegetated Roof .... p. 225
Benches/Site furnishings: Landscape Forms. *Edging*: Permaloc. *Paving*: Westile. *Retaining walls*: Unilock. *Signs*: Xihibitz. *Trash receptacles*: Landscape Forms.

GSB, Inc. Architects & Planners

1140 N.W. 63rd St., Suite 500
Oklahoma City, OK 73116 • (405)848-9549

Edmond Memorial High School, Freshman Academy .... p. 83
Brick/Masonry: Acme Brick. *Cabinets:* TMI. *Carpet:* Lees. *Ceilings:* USG. *Ceramic tile:* Crossville, Interceramic. *Chalkboards:* Newline. *Clocks/Time management:* Primex. *Communications systems:* Rauland Borg. *Door hardware:* Best Access, LCN Closers, Von Duprin. *Doors:* Oshkosh. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* Elkay. *Elevators:* Schindler. *Emergency lighting:* Cooper Lighting. *Flooring:* Armstrong. *HVAC control devices, HVAC units:* Trane. *Indoor lighting:* Metalux. *Insulation:* Johns Manville. *Kitchen equipment:* Everpure, Hatco, Hobart, Victory. *Lockers:* Penco Products. *Markerboards:* Newline. *Paint:* PPG. *Roofing:* Siplast. *Science furniture:* Kewaunee. *Signage:* Mohawk. *Washroom accessories:* Bobrick. *Washroom fixtures:* Crane Plastics. *Washroom/shower partitions:* Comtec. *Windows:* Vistawall.

Hastings & Chivetta Architects

700 Corporate Park Drive, Suite 400
St. Louis, MO 63105 • (314)863-5717

Centre College, Pearl Hall .... p. 125
Brick/Masonry: Belden Brick. Carpets,Lees. *Ceilings:* Armstrong. *Door hardware:* Best Access Systems. *Doors:* Graham. *Elevators:* ThyssenKrupp. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Azrock. *HVAC control devices:* Circon. *HVAC units:* Mammoth Heat Pump. *Laundry equipment*: Graber. *Paint:* Sherwin-Williams. *Roofing:* Elk. *Signage:* ASI. *Washroom accessories:* Bradley. *Washroom fixtures:* Delta. *Windows:* EFCO.

East Central College, Nursing, Health and Science Building .... p. 126
Auditorium/assembly furniture: C/S, Clarin, Draper. *Brick/Masonry:* Interstate Brick, Schluter. *Carpet:* Bentley, Blueridge, Lees, Mannington. *Ceilings:* Armstrong. *Chalkboards:* Claridge. *Classroom furniture:* Sitonit. *Communications systems:* Lowell, Shire, Wiremold. *Door hardware:* Best Access, Glynn Johnson, Hager, Ives, LCN Closers. *Doors:* VT Industries. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* Elkay. *Elevators:* Otis. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* Larsen's. *Flooring:* Johnsonite. *Hand-drying equipment:* World Dryer. *HVAC control devices:* Cook, Johnson Controls. *HVAC units:* Airtherm, Baltimore, Cook, Kewaunee, McQuay. *Indoor lighting:* Bega, Focal Point, Peerlite, Signtex. *Insulation:* Johns Manville. *Locks:* Best Access. *Lounge furniture:* Campbell. *Markerboards:* Claridge. *Office furniture:* Allsteel. *Paint:* Glidden, ICI, Maharam. *Plumbing:* Bemis, Chicago Faucet, Josam, Kohler, Sloan Valve. *Roofing:* Carlisle. *Science furniture:* Glen Alsphaugh, Kewaunee. *Security systems:* Notifier. *Signage:* API Sign Systems. *Skylights:* Supersky. *Washroom accessories:* American Specialties. *Washroom fixtures:* Chicago Faucets, Kohler, Sloan Valve. *Washroom/shower partitions:* Bradley. *Windows:* US Aluminum.

Ivy Tech Community College, Madison Campus Expansion and Renovation .... p. 127
No supplier information available.

Macalester College, Leonard Center ....p. 128
Athletic equipment: Porter Athletic Equipment. *Bleachers/Grandstands:* Interkal. *Brick/Masonry:* Aristone. *Doors:* Algoma Hardwoods, EFCO. *Fire/Life-safety systems:* 3M Fire Protection. *Hand-drying equipment:* Bobrick. *Indoor lighting:* HE Williams, Infinity, Kurt Versen, Lite Control. *Insulation:* Owens Corning. *Lockers:* DeBourgh. *Physical-education flooring:* Connor Sports Flooring. *Scoreboards/Clocks:* Fair-Play. *Skylights:* Skywall. *Washroom accessories, washroom fixtures:* Bobrick. *Windows:* EFCO, Vircon.

Wartburg College, Wartburg-Waverly Sports & Wellness Center .... p. 217
Athletic equipment: Porter Athletic Equipment. *Bleachers/Grandstands:* Interkal. *Brick/Masonry:* Anamosa, Sioux City Brick. *Carpet:* Bolyu, Bonar, Mannington, Masland, Patcraft, Shaw. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile, Marca Corona. *Classroom furniture:* Thonet. *Door hardware:* Glynn Johnson, Ives, LCN Closers, Pemko, Von Duprin. *Doors:* Algoma Hardwoods. *Drinking fountains:* Elkay. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* JL Industries. *Flooring:* Johnsonite, Mannington. *Lockers:* Comtec, Republic Storage Solutions. *Locks:* Locknetics, Schlage, Yale. *Markerboards:* Polyvision. *Physical-education flooring:* Polyturf, Robbins. *Scoreboards/Clocks:* Fair-Play. *Washroom accessories:* Bradley, Peerless. *Washroom fixtures:* Capitol Partitions. *Washroom/shower partitions:* Comtec.

HHSDR Architects/Engineers

130 Seventh St., Suite 201
Pittsburgh, PA 15222-3413 • (412)281-2280

Allison Park Elementary School, Additions and Alterations .... p. 190
Athletic equipment: Porter Athletic Equipment. *Cabinets:*

Klingner & Associates, PC

616 N. 24th St. • Quincy, IL 62301
(217)223-3670

Southeastern CUSD #337, New High School ..p. 88
ADA/Compliance equipment: Armor Tile Tactile Surface. *Brick/Masonry:* Architectural Cast Stone. *Cabinets:* Stevens. *Carpet:* Lees. *Ceramic tile:* Dal-Tile. *Chalkboards:* Polyvision. *Door hardware:* Corbin Russwin, Hager. *Doors:* Graham, HM Doors, Overhead Door, Steelcraft. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* Elkay. *Elevators:* Schumacher Elevator. *Emergency lighting:* Lithonia Lighting. *Fire/Life-safety systems:* Edwards Systems Technology. *Flooring:* Armstrong. *HVAC control devices:* Aerton Technologies. *HVAC units:* Addison. *Indoor lighting:* Day-Brite Lighting. *Insulation:* Owens Corning. *Kitchen equipment:* Hobart, Randell Drop-In, Salvajor. *Library/media center furniture:* Buckstaff. *Lockers:* Republic Storage Systems. *Markerboards:* Polyvision. *Movable partitions/walls:* Hufcor. *Other:* Metecno. *Paint:* Sherwin-Williams. *Plumbing:* Kohler. *Roofing:* Versigard. *Science furniture:* Fisher-Hamilton. *Security systems:* GE Security. *Signage:* A.P.I. Sign Systems. *Washroom accessories, washroom fixtures:* Bradley. *Washroom/shower partitions:* Comtec. *Windows:* EFCO, Kawneer.

KSQ Architects, PC

235 Main St., Suite 410
White Plains, NY 10601 • (914)682-3700

Stony Brook University, Kelly Dining Center p. 208
No supplier information available.

Yorktown Central School District, Auditorium Renovation ....p. 195
No supplier information available.

KSQ Architects, PC

406 S. Boulder Ave., Suite 500
Tulsa, OK 74103 • (918)592-0622

Texas Christian University, Clark Residence Hall ....p. 194
No supplier information available.

LaBella Associates, PC

300 State St., Suite 201 • Rochester, NY 14614
(585)454-6110

Gates Chili High School ....p. 71
ADA/Compliance equipment: ThyssenKrupp. *Athletic equipment:* Porter Athletic Equipment, Sports Edge, Sportsfield Specialties. *Bleachers/Grandstands:* Interkal. *Cafeteria furniture:* Delfield, Merrychef. *Carpet:* Blue Ridge Commercial Carpet. *Ceilings:* American Decorative Ceilings, Armstrong. *Ceramic tile:* Dal-Tile. *Door hardware:* Ives, LCN Closers, Schlage. *Doors:* Marshfield. *Drinking fountains:* Acorn. *Elevators:* Otis. *Emergency lighting:* Exitronix, Kenall. *Flooring:* Armstrong, Dal-Tile, Dobkin Porcelain Tile, Wausau. *HVAC units:* Johnson Controls. *Indoor lighting:* Hubbell Lighting, Litecontrol, Lithonia, Prescolite. *Insulation:* Owens Corning. *Library/media center furniture:* Bretford. *Movable partitions/walls:* Modernfold. *Paint:* Sherwin-Williams, Tnemec. *Physical-education flooring:* Connor Flooring, ElastiPlus. *Roofing:* Carlisle, Sarnafil. *Science furniture:* Fisher Hamilton. *Skylights:* Major Industries. *Washroom fixtures:* Crane Plastics, Kohler, Sloan Valve. *Washroom/shower partitions:* Flush Metal Partition. *Windows:* YKK.

LaMarr Womack & Associates, LP

711 N. Carancahua, Suite 404
Corpus Christi, TX 78475 • (361)884-7442

William Adams Middle School ....p. 65
Athletic equipment: Performance Sports Systems. *Bleachers/Grandstands:* Hussey Seating. *Brick/Masonry:* Pittsburgh Corning, United Commercial Cast Stone. *Carpet:* Shaw. *Ceilings:* Armstrong. *Ceramic tile:* Interceramic. *Computer furniture:* Smith Systems. *Door hardware:* McKinney. *Doors:* VT Industries. *Draperies/Blinds:* Imperial. *Drinking fountains:* American Specialties, Inc. *Fire/Life-safety systems:* Tyco. *Flooring:* Tarkett. *Hand-drying equipment:* American Specialties, Inc. *Insulation:* Guardian, Thermafiber. *Library/media center furniture:* Maco. *Lockers:* Republic Storage Systems. *Locks:* McKinney. *Markerboards:* Newline. *Paint:* Sherwin-Williams. *Physical-education flooring:* Nora-ment, Robbins Sports Surfaces. *Roofing:* Tremco. *Science furniture:* Fisher-Hamilton. *Scoreboards/Clocks:* Spectrum. *Washroom fixtures:* Kohler. *Windows:* Kawneer.

Lavin Architects

2810 Duniven Circle, Suite 100
Amarillo, TX 79109 • (806)358-7069

Texas Tech University Health Sciences Center, Amarillo Research Building ....p. 165
No supplier information available.

L+C Design Consultants PA

333 Meadowland Parkway
Secaucus, NJ 07094 • (201)866-9583

International High School ....p. 89
No supplier information available.

Lerner | Ladds + Bartels, Inc.

236 Hope St. • Providence, RI 02906
(401)421-7715

Brown University, J. Walter Wilson Building... p. 130
No supplier information available.

Lesko Associates, Inc.

27955 Clemens Road, Suite A
Cleveland, OH 44145 • (440)835-0850

Springfield High School ....p. 90
Athletic equipment: Resilite. *Bleachers/Grandstands:* Interkal. *Brick/Masonry:* Glen-Gery. *Cabinets:* Case Systems. *Cafeteria furniture:* Sico, Sitonit. *Carpet:* Shaw. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Classroom furniture:* V/S, Virco. *Computer furniture:* Smith Systems. *Door hardware:* Ives, LCN Closers, Von Duprin. *Doors:* Steelcraft. *Draperies/Blinds:* KM Fabrics. *Drinking fountains:* Oasis. *Elevators:* Schindler. *Flooring:* Mannington. *HVAC control devices, HVAC units:* Trane. *Insulation:* GenFlex, Owens Corning. *Laundry equipment*: GE. *Lockers:* Republic Storage Systems. *Locks:* Schlage. *Movable partitions/walls:* Moderco. *Multipurpose areas furniture:* Smith. *Office furniture:* Haskell, Instant Seating. *Other:* Major Industries, Meti-Span, Wilsonart. *Paint:* Sherwin-Williams. *Physical-education flooring:* Action Floor Systems. *Plumbing:* Watts. *Roofing:* GenFlex. *Science furniture:* HON. *Washroom fixtures:* Just, Kohler, Symmons, Zurn. *Washroom/shower partitions:* Comtec. *Waste receptacles*: Rubbermaid. *Windows:* Capitol Aluminum, Vistawall.

Little

4501 N. Fairfax Drive, Suite 120
Arlington, VA 22203 • (703)908-4530

The Catholic University of America, Opus Residence Hall ....p. 131
No supplier information available.

Lose & Associates, Inc.

1314 Fifth Ave. N., Suite 200
Nashville, TN 37208 • (615)242-0040

Middle Tennessee State University, Multimodal Transportation Master Plan and Streetscape Enhancements ....p. 226
No supplier information available.

Mach Architecture + Engineering PC

5500 Main St., Suite 347
Williamsville, NY 14221 • (716)565-1349

State University College at Potsdam, Becky's Place at Pratt Commons ....p. 166
Carpet: Interface. *Ceramic tile:* American Olean. *Flooring:* Sincol. *Lounge furniture:* KI. *Paint:* Sherwin-Williams.

Manley Architects

P.O. Box 144 • Vancouver, WA 98666-0144
(360)718-2260

Columbia Adventist Academy, Replacement Classroom Building ....p. 91
Brick/Masonry: Mutual Materials. *Cabinets:* Wilsonart. *Carpet:* Shaw. *Ceilings:* Armstrong. *Ceramic tile:* American Olean. *Clocks/Time management:* American Time & Signal. *Communications systems:* Aiphone. *Door hardware:* Ives, Schlage, Von Duprin. *Doors:* Steelcraft, VT Industries. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* HAWS. *Emergency lighting:* Lithonia, Peerless. *Fire/Life-safety systems:* Silent Knight. *Flooring:* Armstrong. *HVAC control devices:* Hunter Davis. *HVAC units, IAQ devices:* Lennox. *Indoor lighting:* Lithonia, Peerless. *Insulation:* Owens Corning. *Lockers:* Republic Storage Systems. *Markerboards:* Claridge. *Movable partitions/walls:* Modernfold. *Plumbing:* Chicago Faucet, Elkay, Kohler. *Roofing:* Certainteed. *Skylights:* Kalwall. *Washroom accessories:* Bobrick. *Washroom fixtures:* Chicago Faucet, Elkay. *Washroom/shower partitions:* Global Partitions. *Wire management:* Cooper.

Marner Architecture

330 W. 42nd St., 17th Floor
New York, NY 10036 • (212)230-1030

***The Chapin School, Addition and Alterations ....p. 20**
Cabinets: DiMaio. *Carpet:* Interface. *Ceilings:* Certainteed. *Ceramic tile:* American Olean, Dal-Tile. *Classroom furniture:* KI. *Door hardware:* Schlage. *Draperies/Blinds:* Mechoshade. *Elevators:* New York Elevator. *Flooring:* Armstrong. *Indoor lighting:* Cooper Lighting. *Markerboards:* Smart Technologies. *Movable partitions/walls:* Steelcase. *Office furniture:* Global, HON, KI. *Paint:* Benjamin Moore. *Science furniture:* Bedcolab, KI. *Windows:* Fulton.

Maryann Thompson Architects

14 Hillside Ave. • Cambridge, MA 02140
(617)491-4144

***The Atrium School ....p. 21**
Door hardware: Von Duprin. *Doors:* EFCO, Schweiss. *Hand-drying equipment:* Excel Dryer. *Indoor lighting:* Lightolier, LSI, Teka. *Paint:* Sherwin-Williams. *Plumbing:* Toto. *Skylights:* Velux.

***The Children's School (with Ingrid Strong) ....p. 16-17**
Cafeteria furniture: Polyvision. *Carpet:* Patcraft. *Ceilings:* Decoustics. *Ceramic tile:* EnviroGlas, EnviroPlank. *Chalkboards:* Polyvision. *Door hardware:* Elmes, Von Duprin, Von Morris. *Doors:* EFCO, Schweiss. *Draperies/Blinds:* Vistawall. *Drinking fountains:* HAWS. *Flooring:* HAWA. *Hand-drying equipment:* Saniflow. *Indoor lighting:* Bega, Columbia Lighting, Focal Point Lighting, Lightolier, Teka. *Markerboards:* Polyvision. *Movable partitions/walls:* Hafele. *Paint:* ICI Dulux. *Plumbing:* American Standard. *Skylights:* Velux. *Washroom accessories:* American Specialties, Inc., Bobrick. *Washroom fixtures:* Chicago Faucets. *Windows:* Vistawall.

McMillan Smith & Partners Architects, PLLC

P.O. Box 5331 • Spartanburg, SC 29304
(864)585-5678

University of South Carolina Upstate, Health Education Complex .... p. 132
Athletic equipment: AALCO. *Auditorium/assembly furniture:* Irving. *Bleachers/Grandstands:* Sturdi Steel. *Carpet:* Milliken, Monterey. *Ceilings:* Celotex. *Ceramic tile:* Crossville, Shaw Tile. *Computer furniture:* KI. *Door hardware:* Dorma. *Drinking fountains:* Elkay. *Elevators:* Otis. *Emergency lighting:* Cooper Lighting. *Fire/Life-safety systems:* Johnson Controls. *HVAC control devices:* Johnson Controls. *HVAC units:* Carrier. *Indoor lighting:* Cooper Lighting. *Insulation:* Johns Manville. *Lockers:* Hollman. *Lounge furniture:* Brayton. *Markerboards:* Polyvision. *Movable partitions/walls:* Haworth. *Office furniture:* Steelcase, Turnstone. *Paint:* Sherwin-Williams. *Physical-education flooring:* Connor. *Roofing:* Johns Manville. *Science furniture:* Sheldon. *Washroom fixtures:* Crane Plastics. *Windows:* YKK.

MVE Institutional, Inc.

1900 Main St., Suite 800 • Irvine, CA 92614
(949)809-3380

Chapman University, Residential Complex..p. 133
No supplier information available.

Neumann Monson Wictor Architects

701 Douglas St. • Sioux City, IA 51101
(712)255-3610

General Beadle Elementary .... p. 47
No supplier information available.

O'Connell Robertson

4040 Broadway, Suite 200
San Antonio, TX 78209 • (210)224-6032

San Antonio College, Nursing and Allied Health Complex .... p. 134
Brick/Masonry: Acme Brick. *Cabinets:* Helmut Guenschel. *Carpet:* Interface. *Ceilings:* Armstrong. *Classroom furniture:* Izzy Design, KI, Soundcraft. *Computer furniture:* KI. *Draperies/Blinds:* Bali, Graber. *Elevators:* Gen 2. *Emergency lighting:* Day Brite. *Fire/Life-safety systems:* Siemens. *Flooring:* General Polymers. *Indoor lighting:* Day Brite. *Library/media center furniture:* Sound Craft Systems. *Lockers:* AMP. *Lounge furniture:* Arcadia, Defelct-O, HON. *Office furniture:* Allsteel, Steelcase. *Other:* Rubbermaid. *Paint:* Acrovyn. *Roofing:* Johns Manville. *Science furniture:* Allsteel. *Washroom accessories:* Bobrick. *Washroom/shower partitions:* Comtec. *Waste receptacles:* Safco, United Receptacles. *Windows:* Kawneer.

Texas A&M University, McFerrin Athletic Center .... p. 135
Athletic equipment: Mondo. *Bleachers/Grandstands:* Steel Stadiums. *Flooring:* Mondo. *Scoreboards/Clocks:* Lynx Systems.

OWP/P

111 W. Washington, Suite 2100
Chicago, IL 60602 • (312)332-9600

Chicago International Charter School: Ralph Ellison High School .... p. 92
No supplier information available.

Partners in Design Architects

600 52nd St., Suite 220 • Kenosha, WI 53140
(262)652-2800

Brass Community School .... p. 48
Athletic equipment: Porter Athletic Equipment, Shelby. *Auditorium/assembly furniture:* Hussey Seating. *Brick/Masonry:* Belden Brick. *Cafeteria furniture:* Palmer Hamilton. *Carpet:* Collins & Aikman. *Ceilings:* USG. *Ceramic tile:* Dal-Tile. *Clocks/Time management:* SimplexGrinnell. *Door hardware:* Dorma, Hager. *Doors:* Eggers. *Drinking fountains:* Elkay. *Elevators:* Alltech Elevator. *Emergency lighting:* McPhilben. *Flooring:* Armstrong. *HVAC units:* McQuay. *Indoor lighting:* Capri, Columbia Lighting, Cooper Lighting, Day Brite, Focal Point Lighting, Omega, Solvanti, SPI Lighting. *Kitchen equipment:* Advance Tabco, Blodgett. *Library/media center furniture:* Buckstaff. *Lockers:* Penco Products. *Physical-education flooring:* Armstrong. *Roofing:* Firestone. *Washroom accessories:* Bradley, Zurn. *Washroom fixtures:* Bradley, Kohler. *Washroom/shower partitions:* Hiny Hiders, Santana. *Windows:* EFCO.

PBK, Inc.

11 Greenway Plaza, Suite 2210
Houston, TX 77046 • (713)965-0608

Clear Creek High School Rebuild .... p. 93
Brick/Masonry: Acme Brick. *Carpet:* Collins & Aikman. *Ceramic tile:* Dal-Tile. *Door hardware:* McKinney, Sargent. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* Notifier. *Flooring:* Dal-Tile. *HVAC control devices:* Automated Lock. *HVAC units:* McQuay. *Indoor lighting:* Lithonia. *Insulation:* Owens Corning. *Lockers:* List Industries. *Locks:* Sargent. *Markerboards:* Newline. *Movable partitions/walls:* Modernfold. *Paint:* ICI. *Roofing:* Soprema. *Scoreboards/Clocks:* Primex. *Security systems:* Bosch, Panasonic. *Skylights:* CPI. *Washroom accessories:* Bobrick. *Washroom fixtures:* American Standard. *Windows:* Vistawall.

Perkins+Will

1382 Peachtree St. N.E. • Atlanta, GA 30309
(404)443-7485

Arabia Mountain High School .... p. 94
Athletic equipment: Draper. *Bleachers/Grandstands:* Interkal. *Carpet:* Interface. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Doors:* Marshfield. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Emergency lighting:* Lightolier. *Fire/Life-safety systems:* Fire-Lite. *Flooring:* Mannington. *HVAC units:* Trane. *Indoor lighting:* Lightolier. *Kitchen equipment:* Blodgett, Cleveland Range, Colorpoint, Delfield. *Laundry equipment*: Belco. *Lockers:* List Industries. *Locks:* Best Access. *Paint:* Sherwin-Williams. *Physical-education flooring:* Robbins Sports Surfaces. *Roofing:* Johns Manville. *Washroom accessories:* Bobrick. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* Accurate Partitions. *Windows:* Kawneer.

***Woodward Academy, Math and Science Building .... p. 72**
Brick/Masonry: Boral Brick. *Carpet:* Interface. *Ceilings:* Armstrong. *Elevators:* ThyssenKrupp. *Flooring:* Forbo. *Indoor lighting:* Lumen Source. *Science furniture:* Leonard Peterson. *Washroom accessories:* Bobrick. *Windows:* Oldcastle Glass.

Perkins+Will

1221 Second Ave., Suite 200
Seattle, WA 98101 • (206)381-6005

University of Washington, School of Medicine, Phase II .... p. 136-137
Carpet: Collins & Aikman. *Ceilings:* Armstrong, Danoline, Ecophon. *Classroom furniture:* Advanced Lab Concepts, Durcon, Westmark. *Communications systems:* Siemens, Systimax. *Door hardware:* Corbin Russwin, Norton, Pemko, Stanley, Trimco. *Doors:* Kawneer, Stiles, VT Industries. *Elevators:* Otis. *Fire/Life-safety systems:* Bosch. *Flooring:* Azrock, Dal-Tile, Mannington. *HVAC units:* Envirotech, Greenheck, Haakon, Hydrotherm, Trane, York. *Indoor lighting:* Hess America, Louis Poulsen, Wattstopper. *Insulation:* Owens Corning. *Lounge furniture:* Knoll. *Movable partitions/walls:* Cemco. *Multipurpose areas furniture, office furniture:* Knoll. *Paint:* Valspar. *Roofing:* American Hydrotech, Soprema. *Science furniture:* MOTT, Nuaire. *Security systems:* Notifier. *Washroom fixtures:* HAWS, Just Mfg., Watersaver, Zurn. *Wire management:* Belden, West Penn.

Peter Gisolfi Associates

566 Warburton Ave. • Hastings-on-Hudson, NY 10706 • (914)478-3677

***Hackley School, Kathleen Allen Lower School .... p. 28**
Athletic equipment: Jaypro. *Cafeteria furniture:* F.W. Lombart Co. *Carpet:* Lees. *Ceilings:* Armstrong, Ecophon. *Ceramic tile:* Marca Corona. *Classroom furniture:* F.W. Lombart Co. *Computer furniture:* Knoll. *Flooring:* Azrock. *Library/media center furniture:* F.W. Lombart Co. *Lounge furniture:* Brandrud. *Office furniture:* Arnold. *Paint:* Benjamin Moore. *Physical-education flooring:* Aacer Flooring. *Roofing:* Englert. *Scoreboards/Clocks:* Daktronics. *Signage:* ASI Modulex. *Windows:* Norwood.

Pressley Associates Landscape Architects

1035 Cambridge St. • Cambridge, MA 02141
(617)491-5300

The Wheeler School, East Campus Landscape Enhancements .... p. 227
Drinking fountains: HAWS. *Other:* Bison, Landscape Forms.

Randall Scott Architects, Inc.

14755 Preston Road, Suite 730
Dallas, TX 75254 • (972)664-9100

Angelo State University, Centennial Village Residence Hall and Commons .... p. 210
No supplier information available.

Angelo State University, Plaza Verde Residence Hall .... p. 211
No supplier information available.

Tyler Junior College, Comprehensive Campus Master Plan .... p. 223
No supplier information available.

Ratcliff

5856 Doyle St. • Emeryville, CA 94608
(510)899-6463

University of California—Berkeley, Bancroft Library (Doe Annex) Improvements .... p. 196
Carpet: Lees. *Ceilings:* Armstrong, Decoustics. *Flooring:* Armstrong, Forbo. *Indoor lighting:* Neidhardt, SPI Lighting. *Library/media center furniture:* Spacesaver, Steelcase. *Paint:* ICI Paints. *Windows:* O'Keefe, SAFTI First.

RBS Design Group Architecture, PSC

1035 Frederica St., Suite 140
Owensboro, KY 42301 • (270)683-1158

Russell County Schools, Auditorium/ Natatorium .... p. 218
Auditorium/assembly furniture: Track Seating. *Bleachers/Grandstands:* Interkal. *Cabinets:* Stevens. *Carpet:* Lees. *Ceilings:* USG. *Ceramic tile:* Dal-Tile. *Door hardware:* Best Access. *Doors:* Mohawk. *Drinking fountains:* Oasis. *Elevators:* DC Elevators. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* Edwards System Technologies. *Flooring:* Armstrong, Dal-Tile, Horner. *HVAC units, IAQ devices:* McQuay. *Indoor lighting:* Lithonia. *Insulation:* Owens Corning. *Lockers:* Comtec. *Locks:* Best Access. *Markerboards:* Polyvision. *Movable partitions/walls:* Tubelite. *Paint:* ICI. *Plumbing:* Sloan Valve, Watts. *Roofing:* Carlisle. *Signage:* ASI. *Washroom accessories:* ASI. *Washroom fixtures:* Kohler. *Washroom/shower partitions:* Santana. *Windows:* Tubelite, Winco. *Wire management:* Panduit.

Rees Associates, Inc.

9211 Lake Hefner Parkway, Suite 300
Oklahoma City, OK 73120 • (405)942-7337

University of Oklahoma, Gaylord College of Journalism and Mass Communication ... p. 138
ADA/Compliance equipment: LCN. *Auditorium/assembly furniture:* Irwin Seating. *Brick/Masonry:* Acme Brick. *Carpet:* Bentley Prince Street, Bolyu, Durkan, Interface, Shaw. *Ceilings:* USG. *Ceramic tile:* Crossville. *Classroom furniture:* Vecta. *Computer furniture:* Bretford, Herman Miller, Metro, Nevins, Teknion, Watson. *Door hardware:* Corbin Russwin, Glynn Johnson, Hager, National Guard Products, Rixon, Von Duprin. *Doors:* Algoma Hardwoods, Cornell, Krieger, Steelcraft. *Draperies/Blinds:* MechoShade. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Emergency lighting:* EvenLite, Lithonia. *Fire/Life-safety systems:* Simplex Grinnell, Tyco. *Flooring:* Armstrong, Roppe. *HVAC control devices:* Invensys. *HVAC units:* York. *Indoor lighting:* Bruck, Columbia Lighting, Gothum, HE Williams, Infinity, Lite Control, Lucifer Lighting, Omega, Peerless, Prescolite, SPI Lighting, Winona Lighting. *Insulation:* Johns Manville. *Kitchen equipment:* Hobart, Hoshizaki, Summit, Traulsen. *Locks:* Corbin Russwin, Locknetics. *Lounge furniture:* Cabot Wrenn, Carolina, Stickley, Turnstone. *Markerboards:* TAC Wall, Walltalkers. *Movable partitions/walls:* Georgia Pacific, Modernfold, USG. *Multipurpose areas furniture:* Brayton, Cabot Wrenn, Carolina, Herman Miller, Metro, Nevins, Stickley, Turnstone. *Office furniture:* Geiger, Gunlocke, Herman Miller. *Other:* Forms&Surfaces. *Paint:* Coronado, PPG, Valspar. *Plumbing:* Delta Faucet, Sloan Valve, Wade. *Roofing:* Johns Manville. *Washroom accessories:* Bobrick. *Washroom fixtures:* Kohler. *Washroom/shower partitions:* Bradley. *Windows:* Guardian Glass, Kawneer.

Rhinebeck Architecture & Planning PC

21 E. Market St. • Rhinebeck, NY 12572
(845)876-2832

Green Tech High Charter School .... p. 95
Athletic equipment: Porter Athletic Equipment. *Bleachers/Grandstands:* Interkal. *Cabinets:* Case Systems. *Carpet:* Lees. *Ceilings:* Armstrong, USG. *Ceramic tile:* Dal-Tile. *Chalkboards:* Aarco. *Door hardware:* Schlage. *Doors:* Algoma Hardwoods. *Draperies/Blinds:* Draper. *Elevators:* ThyssenKrupp. *Flooring:* Armstrong. *Hand-drying equipment:* ASI. *Insulation:* Celotex. *Lockers:* ASI. *Locks:* Schlage. *Markerboards:* Aarco. *Movable partitions/walls:* Hufcor. *Paint:* Sherwin-Williams. *Physical-education flooring:* Action Floor Systems. *Roofing:* Dow, Stevens. *Scoreboards/Clocks:* Fairplay. *Skylights:* Kalwall. *Washroom accessories:* Bobrick. *Washroom/shower partitions:* Comtec, Santana. *Windows:* EFCO.

Rogers, Lovelock, and Fritz, Inc. (RLF)

145 Lincoln Ave. • Winter Park, FL 32789
(407)647-1039

Lake Highland Preparatory School, Harriett Coleman Center for the Arts .... p. 167
No supplier information available.

RSC Architects

596 Anderson Ave., Suite 202
Cliffside Park, NJ 07010 • (201)941-3040

Dr. John Grieco Elementary School .... p. 50
Athletic equipment: Draper. *Brick/Masonry:* Palmetto Brick. *Cabinets:* TMI Systems. *Carpet:* Lees. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Door hardware:* Schlage, Von Duprin. *Doors:* Graham, Special-Lite. *Elevators:* Kone. *Fire/Life-safety systems:* Notifier. *Flooring:* Armstrong. *HVAC control devices:* Johnson Controls. *HVAC units:* York. *Indoor lighting:* Lutron. *Insulation:* Owens Corning. *Kitchen equipment:* Victory. *Locks:* Schlage. *Markerboards:* Claridge. *Paint:* Sherwin-Williams. *Physical-education flooring:* Aacer. *Playground equipment*: Gametime. *Plumbing:* American Standard. *Roofing:* Ecology Roofing. *Washroom accessories:* Bobrick. *Windows:* Architectural Window Mfg., Kawneer.

San Fanandre Justin, Architects

259 W. 30th St. • New York, NY 10001
(212)463-9550

Purchase College-State University of New York, Campus Center Plaza Rehabilitation p. 228-229
Benches/Site Furnishings: Landscape Forms, Urban Accessories. *Bicycle racks*: Columbia Cascade. *Concrete*: Hanover, Sunny Brook, Wausau Tile. *Lighting & Accessories*: Hydrel, Selux.

schacht aslani architects

506 Second Ave., Suite 700
Seattle, WA 98104 • (206)443-3448

***Peninsula College, Library and Administration Building ....p. 18-19**
Brick/Masonry: Mutual Materials. *Carpet:* Blueridge, Lees. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Door hardware:* Best Access, Corbin Russwin, Norton, Trimco. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Flooring:* Tates. *HVAC control devices:* Siemens. *HVAC units:* Heat Harvester. *Library/media center furniture:* KI. *Locks:* Best Access. *Paint:* Sherwin-Williams. *Roofing:* Carlisle. *Skylights:* Sun Optics. *Washroom accessories:* Bobrick. *Washroom fixtures:* Kohler, Sloan Valve. *Waste receptacles:* Bobrick. *Windows:* Kawneer.

SchenkelShultz Architecture

1591 Hayley Lane, Suite 201
Fort Myers, FL 33907 • (239)481-0200

Florida Gulf Coast University, Lutgert Hall .. p. 139
Cabinets: Wilsonart. *Carpet:* Mohawk. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Doors:* Marshfield. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Fire/Life-safety systems:* SimplexGrinnell. *Flooring:* Johnsonite, Mannington. *HVAC control devices:* Johnson Controls. *HVAC units:* York. *Markerboards:* Claridge. *Paint:* Sherwin-Williams. *Roofing:* Berridge. *Security systems:* Stanley. *Washroom accessories:* Bobrick. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* Global Partitions. *Windows:* Kawneer, Viracon.

SchenkelShultz

4890 W. Kennedy Blvd., Suite 930
Tampa, FL 33609 • (813)383-5500

Suncoast Polytechnical High School .... p. 98
No supplier information available.

Schmidt Associates

320 E. Vermont St. • Indianapolis, IN 46204
(317)263-6226

Plainfield High School .... p. 96-97
Athletic equipment: Gill, Performance Sports Systems. *Auditorium/assembly furniture:* Hussey Seating. *Bleachers/Grandstands:* E&D Specialties, Hussey Seating. *Brick/Masonry:* Belden Brick. *Cabinets:* Matt Mfg., Stevens, Wenger. *Carpet:* Bentley, Lees, Shaw. *Ceilings:* Eurospan, USG. *Ceramic tile:* Dal-Tile. *Communications systems:* Mitel, Valcom. *Door hardware:* Schlage. *Doors:* Algoma Hardwoods, Curries, Krieger. *Draperies/Blinds:* Draper. *Drinking fountains:* Elkay. *Elevators:* ThyssenKrupp. *Emergency lighting:* Dual-Lite. *Fire/Life-safety systems:* FCI. *Flooring:* Armstrong, Forbo, General Polymers, Johnsonite, Perroxy. *Hand-drying equipment:* Excel. *HVAC units:* Ben-Mar, Seresco, York. *Indoor lighting:* Columbia, Finelite, Lightolier, Morelight. *Library/media center furniture:* Architex Fabrics, Brodart. *Lockers:* List Industries. *Locks:* Best. *Markerboards:* Polyvision. *Movable partitions/walls:* Design Tex, Guilford, Modernfold, Tower. *Other:* Balco, Morin. *Paint:* PPG, Tnemec. *Physical-education flooring:* Mondo, Robbins Sports Surfaces. *Plumbing:* Aerco, York. *Roofing:* GAF, JP Stevens, Loadmaster. *Science furniture:* Stevens. *Scoreboards/Clocks:* Nevco. *Security systems:* Integral Technologies. *Signage:* ASI. *Washroom accessories:* Bobrick. *Washroom fixtures:* Kohler, Sloan Valve, Zurn. *Washroom/shower partitions:* Flushmetal. *Windows:* Kalwall, Oldcastle, Wausau. *Wire management:* Hubbell.

Scholer Corporation

111 West 240 South, P.O. Box 808
Lafayette, IN 47902-0808 • (765)474-1478

Purdue University, Wiley Dining Court .. p. 140
No supplier information available.

SCHRADERGROUP architecture

161 Leverington Ave., Suite 105
Philadelphia, PA 19127 • (215)482-7440

***Central York School District, Natatorium... p. 152**
Bleachers/Grandstands: E&D Specialty Stands. *Brick/Masonry:* Glen-Gery. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Clocks/Time management:* Sapling. *Communications systems:* Telecor. *Computers:* Apple. *Door hardware:* Sargent. *Doors:* Kawneer. *Draperies/Blinds:* Hunter Douglas. *Drinking fountains:* Acorn. *Emergency lighting:* Emergi-Lite. *Fire/Life-safety systems:* Siemens. *Flooring:* American Olean. *Hand-drying equipment:* Bradley. *HVAC control devices:* Johnson Controls. *HVAC units:* Pool Pak. *Indoor lighting:* SPI Lighting. *Insulation:* Dow. *Lockers:* Penco Products. *Locks:* Sargent. *Markerboards:* Polyvision. *Other:* Neptune Benson. *Paint:* MAB. *Plumbing:* Kohler. *Roofing:* Firestone. *Scoreboards/Clocks:* Colorado Timing. *Washroom fixtures:* Kohler. *Windows:* Kawneer.

SFCS, Inc.

305 S. Jefferson St. • Roanoke, VA 24011-2003
(540)344-6664

Washington and Lee University, James Graham Leyburn Library .... p. 197
Cabinets: 3Form, Zodiaq. *Cafeteria furniture:* Brayton. *Carpet:* Patcraft, Shaw. *Ceilings:* Armstrong. *Classroom furniture:* Brayton, Herman Miller. *Computer furniture:* Herman Miller. *Computer furniture:* Steelcase. *Door hardware:* Corbin Russwin, Hager. *Doors:* Algoma Hardwoods, Kawneer. *Flooring:* Amtico. *Library/media center furniture, lounge furniture:* Brayton. *Office furniture:* Herman Miller, HON. *Paint:* Sherwin-Williams. *Windows:* Kawneer.

SFL+A Architects

333 Fayetteville St., Suite 225
Raleigh, NC 27601 • (919)573-6350

Eastern Guilford High School .... p. 99
No supplier information available.

Sherman Carter Barnhart

2405 Harrodsburg Road • Lexington, KY 40504
(859)224-1351

Corbin Primary School .... p. 51
ADA/Compliance equipment: Institutional Products. *Bleachers/Grandstands:* Irwin Seating. *Brick/Masonry:* Belden Brick. *Cabinets:* TMI Systems. *Carpet:* Collins & Aikman. *Ceilings:* Dunn. *Ceramic tile:* Crossville, Dal-Tile. *Chalkboards:* Claridge. *Clocks/Time management:* Primex. *Communications systems:* Telecor. *Door hardware:* Von Duprin. *Doors:* Mohawk. *Drinking fountains:* Elkay. *Emergency lighting:* Lithonia Lighting. *Fire/Life-safety systems:* Comstar, Honeywell. *Flooring:* Forbo. *HVAC control devices:* Control Systems Int'l. *HVAC units:* Mammoth. *Indoor lighting:* Lithonia Lighting. *Kitchen equipment:* Hobart. *Lockers:* ASI Storage Solutions. *Locks:* Von Duprin. *Markerboards:* Claridge. *Movable partitions/walls:* Holcomb & Hoke. *Paint:* Sherwin-Williams. *Physical-education flooring:* Aztec. *Roofing:*

Von Duprin. *Doors:* Algoma Hardwoods, Curries. *Fire/Life-safety systems:* Activa. *Flooring:* Armstrong. *Lockers:* Republic . *Locks:* Best Access. *Markerboards:* Addendum 10, Alliance. *Movable partitions/walls:* Modernfold. *Other:* Da Lite. *Paint:* Sherwin-Williams. *Physical-education flooring:* Johnsonite, Tuflex. *Retaining walls:* Rockwood. *Roofing:* GAF, Una Clad. *Washroom accessories:* ASI. *Washroom fixtures:* Kohler, Moen, Sloan Valve. *Washroom/shower partitions:* Imperial Track. *Windows:* Kawneer.

TMP Architecture, Inc.

1191 W. Square Lake Road
Bloomfield Hills, MI 48302 • (248)338-4561

Skyline High School .... p. 103
Auditorium/assembly furniture: Irwin Seating. *Bleachers/Grandstands:* Interkal, Sturdisteel. *Brick/Masonry:* Grand Blanc. *Cabinets:* LSI, Stevens, TMI Systems. *Cafeteria furniture:* Sico. *Carpet:* Interface. *Ceilings:* USG. *Ceramic tile:* Ceramica Vogue, Dal-Tile, Sicis. *Classroom furniture:* Allsteel, Biofit, Sit-On-It, Steelcase, Wenger. *Clocks/Time management:* National Time. *Computer furniture:* Allsteel, Sit-On-It, V/S. *Door hardware:* National Guard. *Elevators:* Otis, Schindler. *Fire/Life-safety systems:* JL Industries. *Flooring:* Armstrong, Forbo, General Polymers, Mondo. *Indoor lighting:* Columbia Lighting, Lightolier, Lithonia, Metalux. *Kitchen equipment:* Great Lakes. *Library/media center furniture:* Allsteel, Sit-On-It, Spacesaver, V/S, Worden. *Lockers:* Evertuff, Penco Products. *Lounge furniture:* Brayton. *Markerboards:* Claridge. *Movable partitions/walls:* Hufcor, Modernfold. *Multipurpose areas furniture:* Gunlocke. *Office furniture:* Allsteel, Biofit, Gunlocke, Integra, Sit-On-It. *Paint:* ICI, Pittsburgh Paints, Polomyx, Sherwin-Williams. *Science furniture:* Biofit, V/S. *Washroom fixtures:* Aqua Surf. *Windows:* Kawneer.

TowerPinkster

678 Front Ave. N.W., Suite 255
Grand Rapids, MI 49504 • (616)456-9944

Prairie Ridge Elementary .... p. 54
Athletic equipment: Porter Athletic Equipment. *Brick/Masonry:* Sioux City Brick. *Cafeteria furniture:* Biofit. *Carpet:* Mannington, Patcraft, Shaw. *Ceilings:* Armstrong, Chicago Metallic. *Ceramic tile:* Paltile. *Classroom, computer furniture:* Stelter, V/S. *Doors:* Algoma Hardwoods, Cross Aluminum. *Elevators:* Vertical Express. *Flooring:* Crossville, Stonescape. *HVAC units:* Carrier, York. *IAQ devices:* Air Monitor. *Indoor lighting:* Focal Point Lighting. *Insulation:* Owens Corning. *Kitchen equipment:* Delfield. *Library/media center furniture:* Worden. *Multipurpose areas furniture:* Corilam, Stelter, V/S. *Office furniture:* All Steel, Sit-On-It, Steelcase. *Paint:* Sherwin-Williams. *Physical-education flooring:* Taraflex. *Playground equipment*: Little Tikes. *Roofing:* Carlisle. *Scoreboards/Clocks:* Fair Play. *Waste receptacles*: Landscape Forms. *Windows:* Kalwall, Litex, Pella.

Treanor Architects, PA

110 McDonald Dr., Ste. 192
Lawrence, KS 66044 • (785)842-4858

***University of Kansas, Krehbiel Scholarship Hall .... p. 22**
ADA/Compliance equipment: ASI. *Brick/Masonry:* Glen-Gery. *Card systems:* CBORD. *Carpet:* J&J Commercial. *Ceilings:* Armstrong. *Ceramic tile:* American Olean. *Door hardware:* McKinney, Norton, Pemko, Precision, Rixson, Rockwood. *Doors:* Eggers. *Draperies/Blinds:* Graber. *Elevators:* Vertical Express. *Emergency lighting:* Lithonia. *Fire/Life-safety systems:* Larsen's, SimplexGrinnell, Tyco, United Brass, Victaulic, Viking. *Flooring:* Armstrong. *HVAC control devices:* Johnson Controls. *HVAC units:* Desert Aire, Greenheck, Qmark, Water Furnace. *Indoor lighting:* Icon, Lithonia, Manning, Progress. *Insulation:* Certainteed, Dow, Guardian, Johns Manville. *Kitchen equipment:* Cecilware, Curtis, Duke, Hobart, Jamestown, Metro, Silver King, Victory, Vulcan. *Locks:* Best Access. *Markerboards, Messageboards*: Claridge. *Paint:* Benjamin Moore. *Plumbing:* Fiat, ProFlo, Wade, Watts. *Roofing:* Tamko. *Signage:* Gemini, Nelson Harkins. *Washroom accessories:* ASI. *Washroom fixtures:* Aquarius, Bemis, Chicago Faucet, Crown, Kohler, Leonard. *Washroom/shower partitions:* Accurate Partitions. *Windows:* Manko.

University of Kansas, Boathouse .... p. 145
No supplier information available.

Treanor Architects, PA

1501 W. 6th Street, Suite A
Lawrence, KS 66044 • (785)843-5554

Bishop Ward High School, St. Albert the Great Science Classroom .... p. 200
No supplier information available.

University of Missouri—Columbia, Schweitzer Hall Renovation and Addition .... p. 201
No supplier information available.

The Troyer Group

550 Union St. • Mishawaka, IN 46544
(800)200-9976

Associated Mennonite Biblical Seminary Library .... p. 146
Brick/Masonry: Belden Brick, Masolite. *Cabinets:* LVE Mfg. *Carpet:* Interface. *Ceilings:* Armstrong. *Ceramic tile:* Crossville. *Door hardware:* Corbin Russwin, Hager, Horton Automatics, Ives, LE Johnson, National Guard, Norton, Pemko, Schlage. *Doors:* Ceco Door Products, Mohawk. *Drinking fountains:* Elkay. *Elevators:* Otis. *Fire/Life-safety systems:* Gentex. *Flooring:* Johnsonite. *HVAC control devices:* Johnson Controls. *Indoor lighting:* Davis/Muller, Lightolier, Lithonia. *Insulation:* Certainteed. *Paint:* Benjamin Moore. *Roofing:* Certainteed. *Skylights:* Skyline. *Washroom accessories:* Bobrick. *Washroom fixtures:* Sloan Valve. *Windows:* Pella.

Indiana University South Bend, River Crossing Campus Apartments Community Building... p. 171
ADA/Compliance equipment: Bradley. *Carpet:* Interface. *Carpet:* Shaw. *Ceilings:* USG. *Ceramic tile:* Dal-Tile. *Door hardware:* Best Access Stanley. *Doors:* Ceco Door Products, Tubelite. *Flooring:* Johnsonite, Mannington. *Insulation:* Owens Corning. *Locks:* Best Access, Stanley. *Movable partitions/walls:* Weather Boards. *Paint:* Sherwin-Williams. *Roofing:* Cornell. *Washroom accessories:* Bradley. *Washroom/shower partitions:* Hadrian. *Waste receptacles*: Outdoor Creative Concepts. *Windows:* Marvin.

Van H. Gilbert Architect PC

2428 Baylor Drive S.E.
Albuquerque, NM 87106 • (505)247-9955

Rudolfo Anaya Elementary School .... p. 220
No supplier information available.

VCBO Architecture

524 South 600 East
Salt Lake City, UT 84102 • (801)575-8800

Mountain Green Elementary School .... p. 29
Brick/Masonry: Buehner Block. *Cabinets:* Anderson Mill. *Ceilings:* Celotex. *Clocks/Time management:* Primex. *Communications systems:* Quam Nichols. *Door hardware:* LCN Closers, Schlage, Von Duprin. *Doors:* Steelcraft. *Draperies/Blinds:* Hunter Douglas, Mechoshade. *Fire/Life-safety systems:* Fire Control Instruments. *Flooring:* Azrock, Nexus. *HVAC control devices:* Siemens. *HVAC units:* Cook, Temtrol. *Indoor lighting:* Cole, Delux, Githam, Lithonia, Rebelle. *Insulation:* Dow, Owens Corning. *Kitchen equipment:* Hatco, Hobart, Metro. *Lockers:* Penco Products. *Movable partitions/walls:* Moderco. *Paint:* Kwal Paint. *Roofing:* Sarnafil. *Skylights:* Kalwall. *Washroom accessories:* American Specialties. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* Columbia Partitions. *Windows:* Vistawall. *Wire management:* Globe.

***Park City High School .... p. 73**
Bleachers/Grandstands: Hussey Seating. *Brick/Masonry:* Buehner Block. *Cabinets:* Anderson Mill. *Ceilings:* Celotex. *Clocks/Time management:* Primex. *Communications systems:* Quam Nichols. *Door hardware:* LCN Closers, Marshfield, Schlage, Von Duprin. *Doors:* Steelcraft. *Draperies/Blinds:* Hunter Douglas, Mechoshade. *Elevators:* ThyssenKrupp. *Fire/Life-safety systems:* Fire Control Instruments. *Flooring:* Azrock, Nexus. *HVAC control devices:* Siemens. *HVAC units:* Cook, Temtrol. *Indoor lighting:* Cole, Delux, Githam, Lithonia, Rebelle. *Insulation:* Dow, Owens Corning. *Kitchen equipment:* Hatco, Hobart, Metro. *Lockers:* Penco Products. *Movable partitions/walls:* Moderco. *Paint:* Kwal Paint. *Roofing:* Fabrel, Sarnafil. *Security systems:* Bosch. *Signage:* Rowmark. *Skylights:* Kalwall. *Washroom accessories:* American Specialties. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* Columbia Partitions. *Windows:* Vistawall. *Wire management:* Globe Tray.

Vigil & Associates Architectural Group, PC

4477 Irving N.W., Suite A
Albuquerque, NM 87114 • (505)890-5030

Escalante Mid-High School .... p. 104
No supplier information available.

WestEast Design Group, LLC

1617 E. Commerce, Suite 7102
San Antonio, TX 78205 • (210)530-0755

Col. Victor Ferrari Learning and Leadership Development Center .... p. 219
No supplier information available.

San Antonio College, Academic Complex p. 147
No supplier information available.

WHR Architects

1111 Louisiana, 26th Floor
Houston, TX 77002 • (713)665-5665

Sam Houston State University, Performing Arts Center .... p. 212
No supplier information available.

Wiedersum Associates Architects

140 Adams Ave., Suite B-14
Hauppauge, NY 11788 • (631)434-7900

Bellport Middle School, Performing Arts Center .... p. 66-67
ADA/Compliance equipment: Garaventa. *Auditorium/assembly furniture:* Irwin Seating. *Brick/Masonry:* Belden Brick. *Cabinets:* Mohon. *Carpet:* Patcraft. *Ceilings:* Armstrong. *Classroom furniture:* Case Systems. *Computer furniture:* Brodart. *Door hardware:* McKinney. *Flooring:* General Polymers. *HVAC units:* Carrier. *Library/media center furniture:* Brodart. *Markerboards:* Polyvision. *Other:* Gotheatrical, Soundcraft. *Paint:* Sherwin-Williams. *Washroom accessories:* Bobrick. *Washroom fixtures:* American Standard. *Washroom/shower partitions:* Bobrick. *Windows:* Architectural Window Mfg.

Williamson Dacar Associates, Inc.

935 Main Street, C-4 • Safety Harbor, FL 34695
(727)725-0951

Hillsborough Community College, Performing Arts Building Renovation and Music Suite Addition .... p. 148
ADA/Compliance equipment: Garaventa. *Auditorium/assembly furniture:* Irwin Seating. *Brick/Masonry:* Rinker. *Carpet:* Shaw. *Ceilings:* Celotex, Kinetics. *Ceramic tile:* Dal-Tile. *Chalkboards:* Claridge. *Classroom furniture:* KI, Wenger. *Door hardware:* Hager, LCN Closers, Pemco, Rockwood, Von Duprin. *Doors:* Algoma Hardwoods, Steelcraft. *Drinking fountains:* Elkay. *Elevators:* Garaventa. *Emergency lighting:* Cooper Lighting. *Fire/Life-safety systems:* Siemens. *Flooring:* Azrock, Tarkett.

Hand-drying equipment: Bobrick. *HVAC control devices:* Trane. *HVAC units:* Trane. *Indoor lighting:* Focal Point, Fusion, Lithonia, Metalux, Portfolio, Sure Lights. *Lockers:* LSI. *Locks:* Best Access. *Office furniture:* Allsteel, Wilsonart. *Other:* Stagecraft, Strand. *Paint:* ICI. *Plumbing:* American Standard, Kohler, Toto. *Roofing:* Johns Manville. *Science furniture:* Kewaunee. *Washroom accessories:* Bobrick. *Washroom fixtures:* Bobrick. *Washroom/shower partitions:* Santana. *Windows:* Vistawall, YKK.

Wittenberg, Delony & Davidson Architects, Inc.

400 W. Capitol, Suite 1800
Little Rock, AR 72201 • (501)376-6681

Don R. Roberts Elementary School .... p. 213
No supplier information available.

Woolpert

343 Fountains Parkway, Suite 100
Fairview Heights, IL 62208
(618)632-7004

Goshen Elementary School and Albert Cassens Elementary School .... p. 55
Athletic equipment: Draper, First Team Sports. *Bleachers/Grandstands:* Irwin Seating. *Brick/Masonry:* Summit Brick & Tile. *Cabinets:* Wilsonart. *Carpet:* Milliken. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Classroom furniture:* Virco. *Computer furniture:* Virco. *Door hardware:* Ives, LCN Closers, Schlage, Von Duprin. *Doors:* Steelcraft, VT Industries. *Draperies/Blinds:* Signature Craft. *Drinking fountains:* Elkay. *Emergency lighting:* Cooper Lighting. *Fire/Life-safety systems:* Honeywell. *Flooring:* Armstrong, Azrock, Protect-All. *HVAC control devices, HVAC units:* Trane. *Indoor lighting:* Cooper Lighting, Gammalux. *Insulation:* Certainteed. *Kitchen equipment:* Greenheck, Hobart, Kolpak, TRUE. *Library/media center furniture:* Falcon, Haworth. *Lockers:* Republic Storage Systems. *Lounge furniture, multipurpose areas furniture:* Falcon. *Office furniture:* Haworth. *Paint:* Sherwin-Williams. *Physical-education flooring:* Action Floor Systems. *Playground equipment*: Childforms. *Roofing:* Firestone Building Products. *Scoreboards/Clocks:* Nevco. *Washroom accessories:* Bobrick, Koala Care. *Washroom fixtures:* Kohler. *Washroom/shower partitions:* Global Partitions. *Windows:* EFCO.

WRA Architects, Inc.

12377 Merit Drive, Suite 1800
Dallas, TX 75251
(214)750-0077

Farmersville Intermediate School .... p. 56
Brick/Masonry: Acme Brick. *Carpet:* Interface. *Ceilings:* USG. *Ceramic tile:* Dal-Tile. *Door hardware:* Best Access, Sargent. *Doors:* Curries, Maiman Co., US Aluminum. *Drinking fountains:* Elkay. *Elevators:* Schindler. *Flooring:* Armstrong. *HVAC units:* Trane. *Insulation:* Certainteed. *Lockers:* Lyon Metal Products. *Locks:* Best Access. *Markerboards:* Polyvision. *Paint:* Sherwin-Williams. *Playground equipment:* Game Time. *Roofing:* Berridge, GAF. *Science furniture:* Advanced Lab Concepts. *Signage:* Best Signs. *Washroom accessories:* Bobrick. *Washroom fixtures:* Bradley, Kohler. *Washroom/shower partitions:* Santana. *Windows:* US Aluminum.

Linelle Warren Middle School .... p. 203
Bleachers/Grandstands: Hussey Seating. *Brick/Masonry:* Acme Brick. *Cabinets:* Westmark. *Carpet:* Shaw. *Ceilings:* Armstrong. *Ceramic tile:* Dal-Tile. *Doors:* US Aluminum. *HVAC control devices:* Johnson Controls. *Kitchen equipment:* Kirby. *Lockers:* Lyon Metal Products. *Markerboards:* Newline. *Paint:* Sherwin-Williams. *Physical-education flooring:* Connor Sport Flooring. *Scoreboards/Clocks:* Fair Play. *Signage:* A.R.K. Ramos.

Margaret T. Smith Elementary School ...... p. 57
Brick/Masonry: Acme Brick. *Cabinets:* Westmark. *Carpet:* Patcraft. *Ceramic tile:* Dal-Tile. *Door hardware:* McKinney, Sargent, Trimco. *Fire/Life-safety systems:* Won Door. *Flooring:* Armstrong. *HVAC units:* Aaon, Carrier. *Indoor lighting:* Lithonia, Peerless, Prisma. *Other:* Centria. *Paint:* Sherwin-Williams. *Roofing:* PAC-Clad, Peterson Aluminum. *Skylights:* Kalwall. *Washroom fixtures:* Bradley, Kohler. *Windows:* US Aluminum.

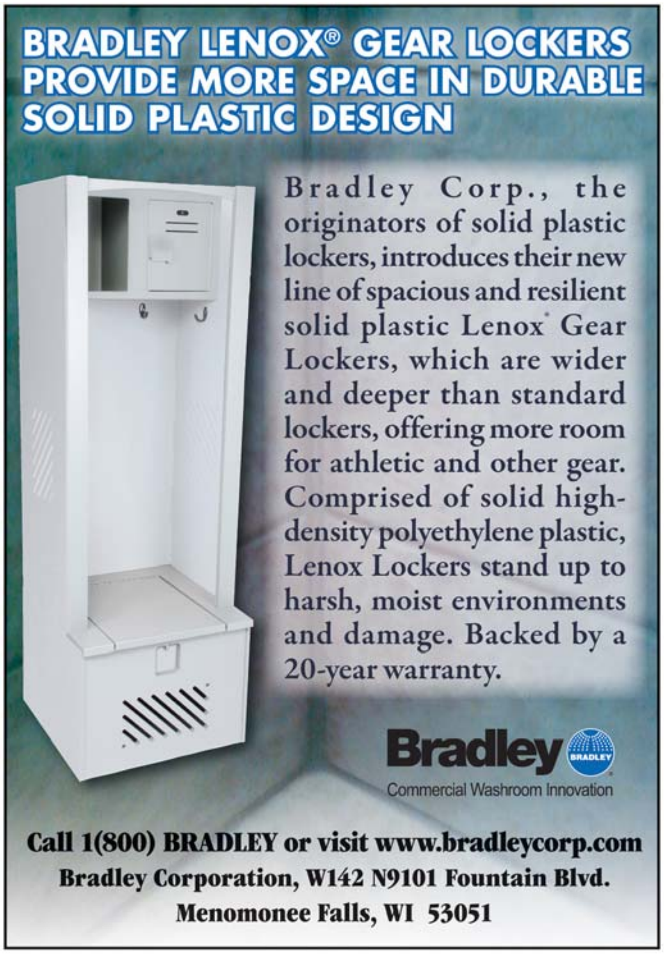
United States Postal Service
Statement of Ownership, Management, and Circulation **(Requester Publications Only)**

1. Publication Title: American School & University
2. Publication Number: 0003-0945
3. Filing Date: 9/22/09
4. Issue of Frequency: Monthly except extra issue in March for 13 issues
5. Number of Issues Published Annually: 13
6. Annual Subscription Price: Free to Qualified
7. Complete Mailing Address of Known Office of Publication (Not Printer): Penton Business Media , 9800 Metcalf Ave., Overland Park, KS 66212-2216 — Contact Person: JoAnn DeSmet, Telephone: 913-967-1669
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not Printer): Penton Business Media249 17th St, Fourth Floor, New York, NY 10011-5390
9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor - Publisher: Gregg Herring, Penton Business Media, Inc., 6151 Powers Ferry Rd, #200, Atlanta, GA 30339; Editor: Joe Agron, Penton Business Media, Inc., 508 Hulmeville Rd, Langhorne, PA 19047; Managing Editor: Susan Lustig, Penton Business Media, Inc., 9800 Metcalf Avenue, Overland Park, KS 66212-2216
10. Owner - Full name and complete mailing address: Penton Business Media, Inc., 249 W 17th St, Fourth Floor, New York, NY 10011 - 5390; Penton Business Media Holdings, Inc. (owns 100% of the stock of Penton Business Media, Inc.), 249 W 17th St, Fourth Floor, New York, NY 10011 - 5390
11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities: None
12. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one) The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes: N/A
13. Publication Title: American School & University
14. Issue Date for Circulation Data: August 2009

15. Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)	66,753	67,387
b. Legitimate Paid and/or Requested Distribution (By Mail and Outside the Mail)		
(1) Outside County Paid/Requested Mail Subscriptions stated on PS Form 3541. (Include direct written request from recipient, telemarketing and Internet requests from recipient, paid subscriptions including nominal rate subscriptions, employer requests, advertiser's proof copies, and exchange copies.)	60,717	60,569
(2) In-County Paid/Requested Mail Subscriptions stated on PS Form 3541. (Include direct written request from recipient, telemarketing and Internet requests from recipient, paid subscriptions including nominal rate subscriptions, employer requests, advertiser's proof copies, and exchange copies.)	0	0
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid or Requested Distribution Outside USPS®	52	58
(4) Requested Copies Distributed by Other Mail Classes Through the USPS (e.g. First-Class Mail®)	0	0
c. Total Paid and/or Requested Distribution (Sum of 15b (1), (2), (3), and (4))	60,769	60,627
d. Nonrequested Distribution (By Mail and Outside the Mail)		
(1) Outside County Nonrequested Copies Stated on PS Form 3541 (include Sample copies, Requests Over 3 years old, Requests induced by a Premium, Bulk Sales and Requests including Association Requests, Names obtained from Business Directories, Lists, and other sources)	4,352	4,635
(2) In-County Nonrequested Copies Stated on PS Form 3541 (include Sample copies, Requests Over 3 years old, Requests induced by a Premium, Bulk Sales and Requests including Association Requests, Names obtained from Business Directories, Lists, and other sources)	0	0
(3) Nonrequested Copies Distributed Through the USPS by Other Classes of Mail (e.g. First-Class Mail, Nonrequestor Copies mailed in excess of 10% Limit mailed at Standard Mail® or Package Services Rates)	0	0
(4) Nonrequested Copies Distributed Outside the Mail (Include Pickup Stands, Trade Shows, Showrooms and Other Sources)	110	30
e. Total Nonrequested Distribution (Sum of 15d (1), (2), (3), and (4))	4,462	4,665
f. Total Distribution (Sum of 15c and 15e)	65,231	65,292
g. Copies not Distributed	1,522	2,095
h. Total (Sum of 15f and g)	66,753	67,387
i. Percent Paid and/or Requested Circulation (15c divided by 15f times 100)	93.16%	92.86%

16. Publication of Statement of Ownership for a Requester Publication is required and will be printed in the November 2009 issue of this publication.
17. Signature and Title of Editor, Publisher, Business Manager, or Owner: JoAnn DeSmet, Audience Development Manager — Date: 9/22/09

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).



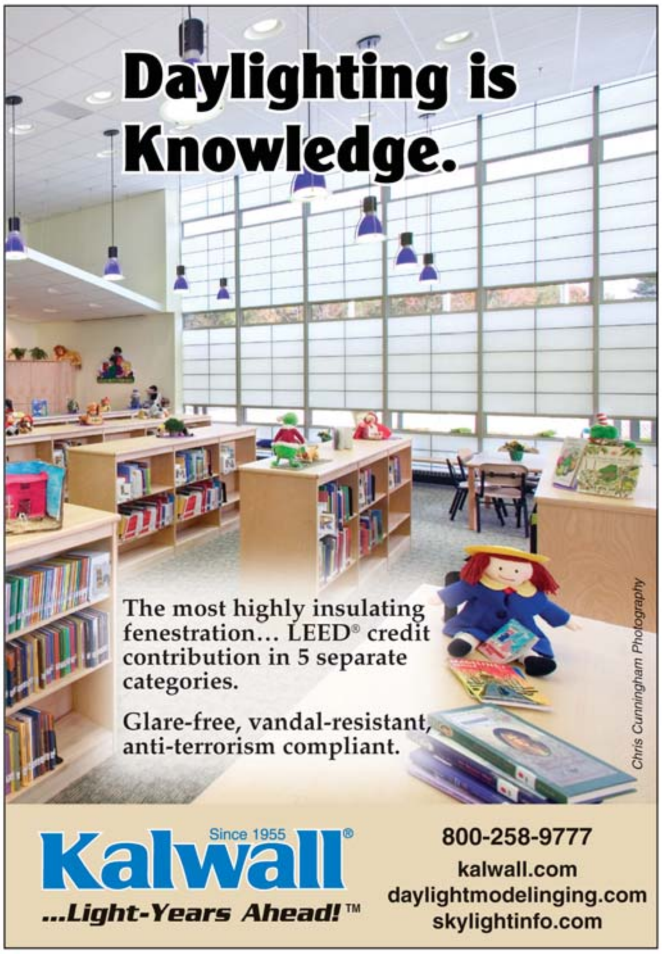
Circle 200 for more information



Circle 201 for more information



Circle 202 for more information



Circle 203 for more information




Circle 204 for more information



Circle 205 for more information

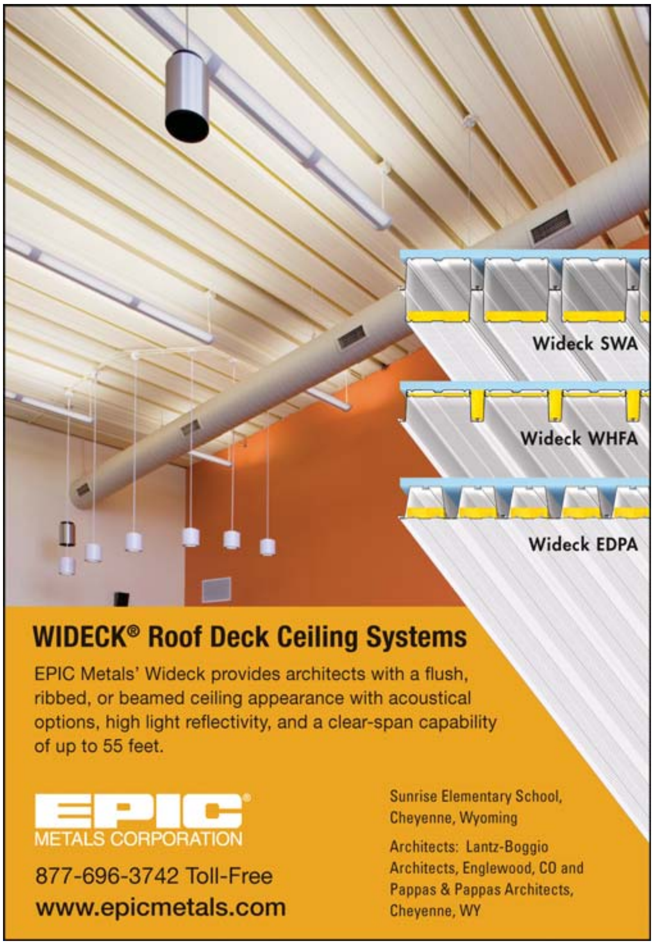


Circle 206 for more information





Circle 207 for more information



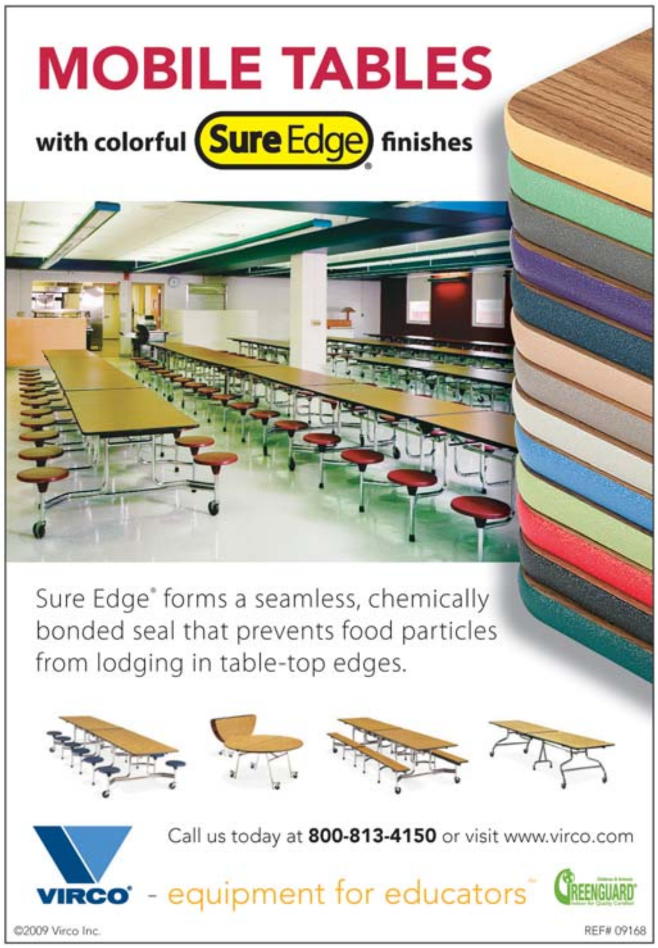
Circle 208 for more information



Circle 209 for more information



Circle 210 for more information



Circle 211 for more information

MARKETPLACE



Circle 212 for more information



Circle 213 for more information

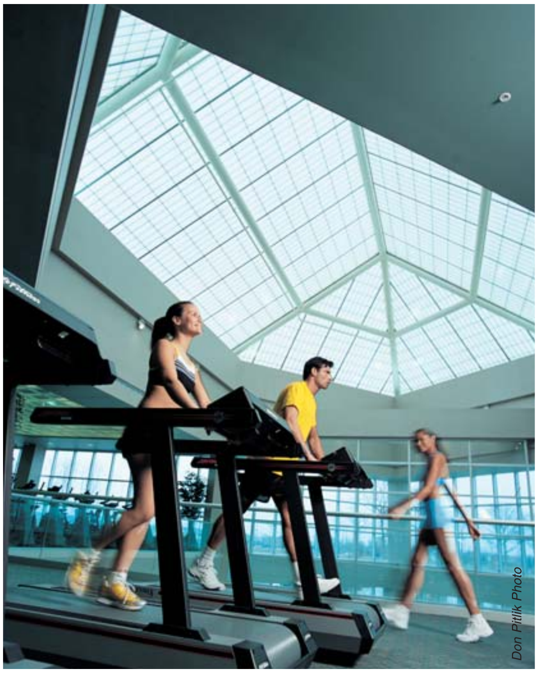
CLASSIFIEDS



Subscribe to
WWW.ASUMAG.COM




Chris Cunningham Photography

Chris Gascolque/View Photo

Don Pitlik Photo

AD INDEX

For more information on products and services for education facilities and business, refer to the advertisements of interest and circle the corresponding reader service numbers on the free info card below.

SALES TEAM

West Coast Sales
Michael Levinson
7212 E. Whistling Wind Way • Scottsdale, AZ 85255
Phone (480) 473-4800 • Fax (480) 473-7008
mike@levinsonmedia.com

Serving: AK, AZ, CA, HI, ID, MT, NV, OR, TX, UT, WA, WY, Western Canada

Midwest Sales
Tom Nilsen
269 S. Old Creek Road • Vernon Hills, IL 60061
Phone (847) 634-0850 • Fax (913) 514-3969
tom.nilsen@penton.com

Serving: AL, AR, CO, IA, IL, IN, KS, KY, LA, MI, MN, MO, MS, NE, NM, ND, OK, SD, TN, WI

East Coast Sales
JoAnne Romanek
306 Shaker Lane • West Chester, PA 19380
Phone (913) 981-6132 • Fax (913) 514-6356
jromanek@asumag.com

Serving: CT, DC, DE, FL, GA, MA, ME, MD, NC, NH, NJ, NY, OH, PA, RI, SC, VT, VA, WV, Eastern Canada

Inside Sales
Gary Kazmier
6151 Powers Ferry Road NW, #200, Atlanta, GA 30339
Phone (770) 618-0374 • Fax (770) 618-0204
gary.kazmier@penton.com

Editorial Office: 9800 Metcalf, Overland Park, KS 66212-2216. (913) 341-1300, www.asumag.com

---

FREE SUBSCRIPTION & INFORMATION CARD

Issue of November 1, 2009 / Valid through May 1, 2010

Please print clearly with a black pen. Allow 4-6 weeks for processing.

AMERICAN SCHOOL & UNIVERSITY — A PENTON MEDIA PUBLICATION
P.O. Box 413050 ◆ Naples, FL 34101-3050 USA

To apply for a FREE subscription or receive FREE information, complete this entire card and FAX to: 888-847-6035 or mail to *American School & University*, PO Box 413050, Naples FL 34101-3050.
You may also apply online at onlinesuboffers.com/asnn9000, or to request information online, go to freeproductinfo.net/asu.

Name/Title ______________________

Institution/Company ______________________

Address ______________________

City ______________ State ________ ZIP ____________

Phone (_______) ______________ *FAX (_______) ______________

**E-Mail ______________ @ ______________

RS9012

*Your fax number is used to communicate to you. By providing your fax number, you are giving your written permission to receive subscription and other related information from *AS&U* that may be of interest to you by fax. We will not share this information or use it for any other purpose. You may opt out of receiving faxes from us any time in the future.
**For a full statement of our Subscriber Privacy Policy, visit our website at penton.com

Circle the numbers that correspond to the product or advertiser information you would like to receive.

101	111	121	131	141	151	161	171	181	191	201	211	221	231	241
102	112	122	132	142	152	162	172	182	192	202	212	222	232	242
103	113	123	133	143	153	163	173	183	193	203	213	223	233	243
104	114	124	134	144	154	164	174	184	194	204	214	224	234	244
105	115	125	135	145	155	165	175	185	195	205	215	225	235	245
106	116	126	136	146	156	166	176	186	196	206	216	226	236	246
107	117	127	137	147	157	167	177	187	197	207	217	227	237	247
108	118	128	138	148	158	168	178	188	198	208	218	228	238	248
109	119	129	139	149	159	169	179	189	199	209	219	229	239	249
110	120	130	140	150	160	170	180	190	200	210	220	230	240	250

1. Do you wish to receive/continue to receive *AS&U* magazine FREE? ❏ **YES!** ❏ No

Signature required ______________________ Date ____________

2. How would you like to receive your copy of *American School & University*?
(If you want to receive the digital version of the magazine, we must have your email address at left)
D ❏ Digital
P ❏ Print

3. Which best describes your job title? (check only one)
J ❏ **Buildings & Grounds/Physical Plant/Facilities:** Asst. Supt. of:, VP of:, Director of:, Manager of:, Supervisor of: ____________
G ❏ **Business/Finance:** Asst. Supt. of:, VP of:, Director of:, Manager of:, Supervisor of: ____________
E ❏ **District Superintendent of Schools**
F ❏ **Facilities Planning:** Asst. Supt. of:, VP of:, Director of:, Manager of:, Supervisor of: ____________
C ❏ **Housing/Residential Life:** Asst. Supt. of:, VP of:, Director of:, Manager of:, Supervisor of: ____________
H ❏ **Purchasing:** Asst. Supt. of:, VP of:, Director of:, Manager of:, Supervisor of: ____________
S ❏ **Safety & Security:** Asst. Supt. of:, VP of:, Director of:, Manager of:, Supervisor of: ____________
N ❏ **Architect, Engineer or Consultant**
X ❏ Other ____________
(please specify)

4. Which category best describes your work in Educational Administration? (check only one)
1 ❏ Public School District (K-12)
3 ❏ Private School (K-12)
6 ❏ Two-Year College (Public or Private)
5 ❏ Four-Year College/University (Public or Private)
2 ❏ Post-Secondary School (medical, law, seminary, etc.)
4 ❏ Independent or Government Vocational School (including school operated by industry, union, government or association)
7 ❏ Architectural, Engineering or Consulting Services
0 ❏ Other ____________
(please specify)

5. What is the enrollment size of your school district or university/college? (check only one)
L ❏ 30,000 or over
K ❏ 25,000-29,999
J ❏ 20,000-24,999
P ❏ 15,000-19,999
N ❏ 10,000-14,999
G ❏ 5,000-9,999
F ❏ 2,500-4,999
E ❏ 1,000-2,499
M ❏ Under 1,000

6. Total number of buildings:
1 ❏ 100+
2 ❏ 76-100
3 ❏ 51-75
4 ❏ 21-50
5 ❏ 11-20
6 ❏ 6-10
7 ❏ 5 or less

7. Total square feet of buildings directly involved with:
1 ❏ 10 million+
2 ❏ 7-9 million
3 ❏ 4-6 million
4 ❏ 1-3 million
5 ❏ 500,000-999,999
6 ❏ less than 500,000

RS9012

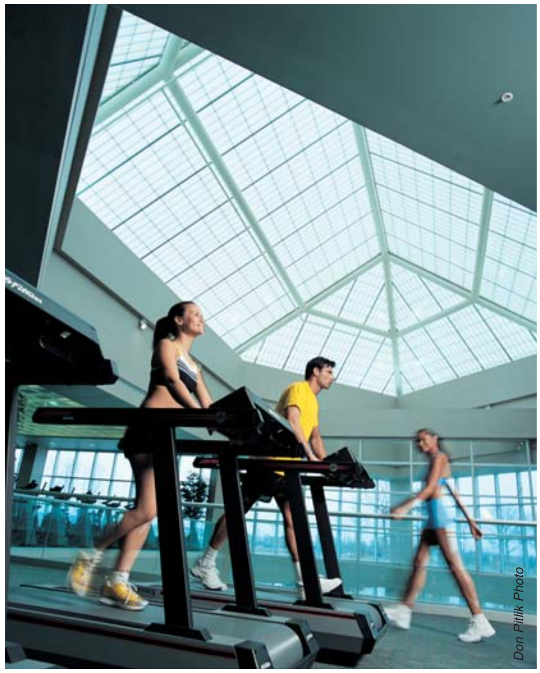
Incomplete forms cannot be processed or acknowledged. The publisher reserves the right to serve only those individuals who meet the publication qualifications.



Chris Cunningham Photography



Chris Gascolque/View Photo



Don Pitlik Photo

